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Establishing and Operating a . . .

RESTAURANT

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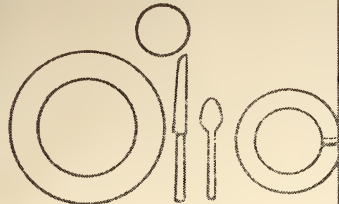
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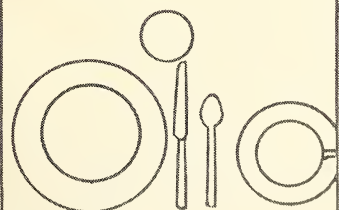
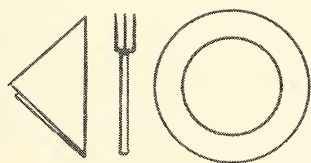
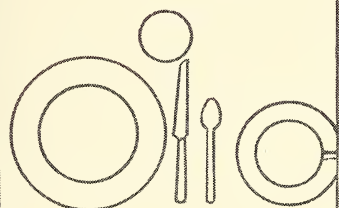
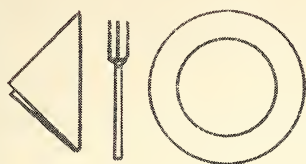
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Harry W. Ketchum, Director



Establishing and Operating a . . .

RESTAURANT



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FOREWORD

This booklet is one of a series that was originally prepared by the Department of Commerce at the request of the Department of Defense. They were used during the demobilization period following World War II to train those members of the Armed Forces who were interested in establishing one of the service or retail businesses.

They served this purpose well. During the past 10 years they have also been made available to the general public, and have helped many people first to determine whether they were qualified to engage successfully in a business of their own, and secondly, if they were already in business, to check their present operations and improve their current practices.

It is hoped that this revision will, like its predecessor, serve as a practical guide for the person who is thinking of opening his own restaurant and as an aid to those who are already in business in making their operations more efficient and profitable.

This revision was prepared by Carl M. Schaffer, Special Consultant, under the direction of I. Q. Lord of the Office of Distribution.

The technical assistance and cooperation of the National Restaurant Association in preparation of both the original edition and this revision has been invaluable. Kathryn Bruce, Armin Kussman, Col. Paul P. Logan and Ralph G. Peterson of the Association Staff have been particularly helpful.

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CHAPTER I

SCOPE OF THE RESTAURANT BUSINESS

The food service business is one of the most important industries which directly serves the consumer. When measured in terms of retail sales, it is the fifth largest business of the Nation, exceeded in volume only by grocery stores, department stores, passenger-car dealers, and gasoline service stations. In 1954 the sales of the more than 195,000 restaurants, cafeterias, lunchrooms, refreshment stands and caterers, amounted to \$8.7 billion. In addition, some 124,000 drinking places which generally serve some foods had sales of about \$4.4 billion. But many places other than public eating and drinking establishments prepare and serve meals or foods for the benefit of the public. Among these are hotels, hospitals, clubs, industrial cafeterias, and other institutional feeding facilities. It has been estimated that if we include all of these sources of prepared meals, an average of 78,000,000 meals are served each day.

Without counting the foods consumed on the farm it has been estimated that in 1948 approximately 25 percent of the value of foods consumed in the United States is accounted for by food served as prepared food outside the home. There is evidence that this percentage is slowly increasing as a larger proportion of people come to enjoy the privileges and convenience of restaurant service.

Aside from size alone the industry is particularly important for another reason. The health and well-being of the millions of people who eat in restaurants every day is affected by the food served. The industry is, therefore, in a sense a great public enterprise with serious obligations to the customers and communities it serves.

The restaurant business is rich in tradition, and in our earliest related history we find the inns of Biblical times serving food to the traveler. This tradition carried on through recorded history, and the English inns and coffeehouses played an important part in the social, governmental, and theatrical life of that country. Here in our own country the early American inn served as the

social and political headquarters of the American patriots. And today the restaurants of the Nation continue to be social and civic centers for their communities.

Although the restaurant business is a very old one, it was not until recent years that its growth has been striking. Prior to 1910 the development and growth of the industry had been steady but the restaurants were patronized primarily by the upper middle class and the well to do. The restaurants were largely the Delmonicos, the Henricis, and other similarly fine restaurants.

But the changing business pattern in the Nation, hastened by the impact of World War I, made dining out more customary. More and more women entered business and industry in this period, and the lunchroom became a popular mecca for noon time meals for employees, shoppers, and citizens generally.

Then in the 1920's the development of the automobile era began to make significant changes in the American way of life, and again the restaurant business went through a period of expansion with the drive-in, the country restaurant, and the soft-drink stand coming into prominence.

The demands of the expanded work force during World War II added further impetus to the dining-out trend. The sales volume of eating and drinking places increased by 171 percent from 1939 to 1945.

Number of Establishments Serving Meals

Figures do not indicate the scope of the entire feeding industry, however, as they normally refer only to establishments whose in-

Table 1 — Where does America eat 25 percent of its food?

<i>These food service establishments</i>		<i>Serve this percent of the meals Americans eat out</i>
194,100 Restaurants, cafeterias, caterers, lunch counters, refreshment stands	56.27%	
26,300 Industrial restaurants	4.81%	
15,100 Hotels	7.98%	
6,600 Hospitals	4.28%	73.34
<i>Other types of food service</i>		<i>Serve this percent</i>
Schools and colleges, clubs, railroads, steamships, airways, taverns and bars, drugstores, YMCA's and camps, department stores, variety stores, candy and confec- tionery stores, cigar stores and stands, motels and tourist courts, delicatessens, bakery product stores, newsdealers, newsstands, boarding houses, churches, convents, Salvation Army, penal institutions, miscel- laneous		26.66

(Total number of all food service establishments is 540,000)

Source: Estimate of National Restaurant Association based on Census data.

come comes primarily from the sale of meals, and do not include hotels, department stores, drugstores, bars, and similar places where the sale of food is secondary to the main line of business. In 1948 there were an estimated 540,000 establishments in the United States serving meals. This figure includes hospitals, boarding houses, clubs, and all places selling meals outside the home for a consideration.

Types of Restaurants

People eat outside the home for many reasons and under diverse circumstances. Those who eat in restaurants may be grouped as follows:

Business workers	Unmarried persons
Travelers	Industrial workers
Shoppers	Occasional restaurant-diners
Professional people	Social groups
Students	

Because each class of customers expects different things from food service, as well as because of variations in individual taste and income, many types of restaurants have developed. Business concerns employing large numbers of industrial or business workers normally provide cafeterias, because of the need to serve many people quickly and economically. Cafeterias, buffets, and lunch counters meet the needs of shoppers and business workers who are in a hurry. The service-type restaurant is popular with those who can be leisurely at mealtime and fills the need of social diners. Department stores have developed tearooms, cafeterias, and luncheonettes which appeal especially to women shoppers. People living in institutions such as hospitals and dormitories also have need of special types of service.

If you are a prospective restaurant operator, there is a wide choice as to type of establishment. A partial classification, according to (1) nature of service, (2) type of atmosphere, (3) type of food specialization, and (4) type of ownership, is given here:

- (1) Nature of service

Table service	Buffet
Counter service	Drive-in
Cafeteria	Automat
- (2) Type of atmosphere

General restaurant	Lunch wagon
Tearoom	Diner
Coffee shop	Night club or theater restaurant
- (3) Type of food specialization

General line restaurant	Nationality restaurant
Grill	Barbecue stand
Luncheonette	Soft-drink stand
Seafood house	Juice stand
Dairy lunch	Ice-cream stand

Waffle shop
Sandwich shop
Fountain

Doughnut shop
Vegetarian restaurant
Hamburger shop

(4) Type of ownership

Chain
Multiunit
Independent

Although the problems of each type differ considerably in detail, they are similar in their general nature.

Table 2—Number of eating, drinking places, volume of sales, and number of proprietors: 1954

Kind of Business	All Establishments		Establishments with Payroll		Proprietors (Unincorporated Businesses Only)
	Number ¹	Sales ¹ (\$000)	Number	Sales (\$000)	Number ¹
Eating, drinking places, total....	319,657	13,101,051	244,409	12,020,993	366,853
Eating places (except refreshment stands)	169,867	8,095,676	130,845	7,575,606	197,404
Refreshment stands	25,261	635,733	19,151	567,329	27,188
Drinking places	123,887	4,360,384	94,413	3,878,058	141,537

¹Group totals may include data for establishments without payroll, which could not be classified by detailed kind of business.

Source: U.S. Bureau of the Census, 1954 Census of Business Bulletin R-1-1 Advance.

Size of Restaurants

The restaurant business is, in the main, a small-scale business. Although the total volume of sales is very large, the typical single-unit eating place is small in comparison with other retail enterprises. The average annual sales volume of all single-unit eating places is about \$40,000. However, the majority of full-year eating places (59 percent) do less than \$30,000 of business a year, as is shown in table 3. And in 1954, such restaurants did only 19 percent of the total business.

No set standard can be established for the size of restaurant which should become the goal. Clearly there is a place for the very small establishment as well as for the large one. Many of the small eating places serve a useful purpose in their communities. They also supplement the income of many people who would otherwise find it difficult to gain employment.

When an eating place is operated as a commercial venture, it must seek to obtain enough volume in order that the business may supply the proprietor's major source of income. To support a balanced investment in fixtures, equipment, and inventory and

**Table 3—Eating and drinking places by
sales size: 1954**

Item	Eating and Drinking Places		Eating Places		Drinking Places	
	Establishments (number)	Sales (\$000)	Establishments (number)	Sales (\$000)	Establishments (number)	Sales (\$000)
All Stores.....	319,657	13,101,051	195,128	8,731,409	123,887	4,360,384
Sales-size Classes (\$000):						
Full year.....	287,837	11,997,031	173,813	8,008,336	113,424	3,980,095
5,000 and over.....	2	D	2	D	0	0
2,000 — 4,999.....	32	D	31	82,285	1	D
1,000 — 1,999.....	211	276,353	207	D	4	D
500 — 999.....	864	586,422	801	544,364	63	42,058
300 — 499.....	1,944	730,674	1,753	659,924	191	70,750
100 — 299.....	16,293	2,516,616	12,853	2,027,042	3,440	489,574
50 — 99.....	41,890	2,819,147	25,080	1,715,116	16,804	1,103,595
30 — 49.....	62,907	2,395,869	31,365	1,194,213	31,492	1,199,814
20 — 29.....	56,935	1,372,602	30,509	731,264	26,344	639,412
10 — 19.....	66,069	954,769	41,434	592,393	24,415	359,346
5 — 9.....	29,541	209,267	21,017	148,205	8,368	60,000
Less than 5.....	11,149	36,935	8,761	29,066	2,302	7,565
Part year.....	31,820	1,104,020	21,315	723,073	10,463	380,289

(D) Withheld to avoid disclosure.

Source: U.S. Bureau of the Census, 1954 Census of Business.

**Table 4—Single unit and multiunit eating and
drinking places: 1954**

Item	Eating and Drinking Places		Eating Places		Drinking Places	
	Establishments (Number)	Sales (\$000)	Establishments (Number)	Sales (\$000)	Establishments (Number)	Sales (\$000)
All stores.....	319,657	13,101,051	195,128	8,731,409	123,887	4,360,384
Total, single unit.....	303,497	11,520,289	181,343	7,278,478	121,512	4,232,553
Total, multiunit.....	16,160	1,580,762	13,785	1,452,931	2,375	127,831
2.....	7,076	461,847	5,229	370,983	1,847	90,864
3.....	1,563	127,660	1,305	113,331	258	14,329
4, 5.....	1,114	121,776	987	112,743	127	9,033
6 — 10.....	927	112,952	899	110,769	28	2,183
11 — 25.....	1,223	161,551	1,212	D	11	D
26 — 50.....	1,055	202,876	959	193,156	96	9,720
51 — 100.....	989	167,721	987	D	2	D
100 and over.....	2,213	224,379	2,207	D	6	D

(D) Withheld to avoid disclosure.

Source: U.S. Bureau of the Census, 1954 Census of Business.

to return a comfortable living, the minimum size at the start should be set at an annual volume of \$25,000 with an ultimate goal of at least \$50,000 a year. A restaurant of this size is one in which all the tools of effective operation can be applied.

Types of Ownership

In 1954 there were approximately 14,000 multiunit eating places doing a total annual volume of about \$1.5 billion, an average of about \$105,000 per restaurant. Single units, numbering about 180,000, did a volume of over \$7 billion, an average of about \$40,000 per restaurant.

When analyzing these figures, it must be remembered that new restaurants operating only a part of the year might report small volumes thus exaggerating the apparent importance of the small restaurants. It might also be pointed out that often very small establishments are not true commercial ventures. They are usually family operated, with the restaurant sometimes occupying a portion of the family living quarters.

In 1954 about 56,000 eating places, operating the full year, had no paid employees though they may have used the services of unpaid members of the family. In other words about 32 percent of the eating places, operated throughout the year, do not employ paid outside help.

**Table 5—Eating and drinking places
by employee-size class: 1954**

Item	Eating and Drinking Places		Eating Places		Drinking Places	
	Establishments (Number)	Sales (\$000)	Establishments (Number)	Sales (\$000)	Establishments (Number)	Sales (\$000)
All stores.....	319,657	13,101,051	195,128	8,731,409	123,887	4,360,384
Employee-size classes:						
Full year.....	287,837	11,997,031	173,813	8,008,336	113,424	3,980,095
0.....	94,035	1,508,710	56,287	831,802	37,148	668,308
1.....	37,479	850,273	16,741	313,714	20,738	536,559
2.....	36,091	1,009,553	17,284	395,765	18,807	613,788
3.....	27,322	909,481	14,767	408,831	12,555	500,650
4 — 5.....	33,505	1,364,750	20,984	744,157	12,521	620,593
6 — 7.....	19,913	1,035,426	14,350	684,011	5,563	351,415
8 — 9.....	10,155	645,604	7,859	471,179	2,296	174,425
10 — 14.....	12,945	1,081,872	10,715	868,392	2,230	213,480
15 — 19.....	6,090	708,106	5,375	614,533	715	93,573
20 — 49.....	8,267	1,645,538	7,517	1,490,471	750	155,067
50 — 99.....	1,597	747,582	1,502	703,720	95	43,862
100 and over.....	438	490,136	432	481,761	6	8,375
Part year.....	31,820	1,104,020	21,315	723,073	10,463	380,289

Source: U.S. Bureau of the Census, 1954 Census of Business.

A restaurant doing \$20,000 business a year is, of course, very small; it takes in about \$400 a week, or about \$66 a day. If the proprietor could take 10 percent of sales in profit and salary, it would amount to only \$6.60 a day. Except in strictly rural areas, this type of operation is being eliminated.

At the other end of the scale, 432 eating places, operating throughout the year, had 100 or more paid employees. Of the larger eating places, those operating throughout the year, and doing \$50,000 a year or more, constituted only a little more than 23 percent of the total number but accounted for about 66 percent of the total sales, and those doing over \$20,000 a year constituted 59 percent of all restaurants but accounted for 90 percent of the business.

Outlook for New Restaurants

Despite the rapid growth of the restaurant industry during recent years, there is continuing opportunity for the establishment of new eating places throughout the country. The rapid rate of increase in our population, the shifting of families from the cities to the suburbs, the continued employment of a large number of married women and the increased mobility of the American family in its leisure hours, all point toward the need for additional "eating out" facilities and the opportunity for the establishment of additional good restaurants serving food of high quality, well prepared and competently served under sanitary conditions.

The restaurant business has a bright future. Undoubtedly as our industrial machine expands, and as our time for pleasure increases, the business of feeding the public will grow even more rapidly than it has in the past. It is not beyond the realm of possibility that within the next 10 years it may attain an annual sales volume of \$20 billion.

CHAPTER II

OPPORTUNITIES IN THE RESTAURANT BUSINESS

General Considerations

Because the restaurant business is highly competitive and requires specific types of skills, it is a business for those with experience as well as knowledge. Unless the man who plans to enter this field has had previous experience, with full business responsibility, in addition to specialized training, it is highly desirable that he work in some organization in which others carry the financial risks. After the necessary experience has been gained, he may go into business for himself, if he can raise the capital and is willing to assume the financial risk, and if he is convinced that he is suited by temperament and ability to become a restaurant owner.

Some of the requisites for those who wish to enter this field should be considered. Among them are:

1. The individual must have a liking for and an ability to get along with people.
2. The technical knowledge necessary in the purchasing, preparing, costing and serving food.
3. The understanding of sound business practices.
4. Social consciousness—The restaurant business affects not only the health and welfare of the individual, but also the safety of the community. The restaurateur must be willing to accept these social obligations.

Working for Others

Many positions in the restaurant field today afford fine possibilities for earning a comfortable salary and for advancement to a better paying job. In many cases the salaries are more than the individuals could earn if they had their own businesses. In any case, working for others will give you the necessary experience when and if you decide to start your own business.

The restaurant business offers job opportunities to fit many different talents.

1. Managerial positions in large general and specialized restaurants, chain systems, bakeries and catering establishments, and industrial restaurants. Requirements for such positions vary with the organization but knowledge and experience in food purchasing and storage, financial control and the handling of personnel are usually expected. These positions are excellent stepping-stones to establishing your own business.

2. Positions in food control, stores control, food cost accounting and the operation of business machines. These positions range from food controller, receiving clerk, and bookkeeper, to clerk, checker, cashier, and storeroom man. Suitable experience or training are required for most of these jobs.

3. Positions connected with service of food, such as headwaiter and headwaitress, hostess, counter workers, waiter, and waitress.

4. Positions connected with food preparation. The preparation of food is a highly skilled job. The use of modern methods of cookery with modern equipment requires accuracy, sound technique, and an understanding of the scientific principles involved. There is an almost unlimited demand for trained and experienced cooks and bakers, as well as for less experienced assistants.

5. Positions connected with cleaning and sanitation. It was formerly assumed that anybody could wash dishes, pots, and pans, that anybody could clean refrigerators, storerooms, dining rooms, and kitchens. That opinion has changed entirely. It is now realized that cleanliness is absolutely essential to all good food preparation and that only trained personnel can do the job properly. As a prospective restaurant owner you should be impressed with the importance of a rigidly sanitary environment in the food service industry.

The jobs listed below show the variety and range of jobs in a large restaurant operation. Naturally the average restaurant does not have specialized personnel for all of these functions. The list serves two purposes here; it indicates the job areas available to you for self-training and it shows the type of personnel you, as an entrepreneur, may have to employ.

Job Classes in the Restaurant Industry

Office and Supervisory (Large chains mainly)

General managers	Personnel directors
Assistant managers	Storeroom supervisors
Food production managers	Bookkeepers
Dining room supervisors	Stenographers and typists
Purchasing agents	Telephone operators
Food cost controllers	Menu makers

Operating

Dining area:

Counter men and women
Hostesses
Cashiers
Soda fountain dispensers
Beverage dispensers

Kitchen:

Chef
Cooks
Bakers
Assistant cooks (salads, sauces,
etc.)
Helpers

Food tabulators
Food checkers
Waitresses and waiters
Bus girls and boys

Pantry:

Salad workers
Sandwich makers
Pastry workers
Housekeeping services

Porters and custodians:

Dishwashers
Storeroom clerks

Working for Yourself

More so than most enterprises, the restaurant business offers the qualified man the opportunity to go into business for himself. The business is easy to enter, perhaps too easy, since it requires more than a desire, a few good recipes, and money if the venture is to succeed. People who fail or become discouraged and withdraw in the first year of operation have learned this lesson the hard and expensive way. But despite a relatively high mortality rate, it is a fact that the restaurant business can be satisfactory and profitable for the person who has the necessary knowledge and applies it intelligently.

Advantages of Restaurant Ownership

There are certain advantages of ownership. One of these is the independence that comes from being your own boss. The owner makes his own decisions and is responsible only to himself. Free to experiment with new and progressive methods, he can develop his own ideas. If these ideas are good, he reaps the reward. The results of hard work or unusual ability accrue to his advantage. As the business develops and grows, the owner knows that the assets he creates may be passed on to his heirs.

It is easy, however, to get an exaggerated idea of the profits earned by the average business. In most small enterprises the owner receives little more than a fair salary for his work. Thus, in a restaurant with a sales volume of about \$50,000 a year, the owner's salary and profits may amount to about \$600 a month. In some instances however the family does all the work, thus receiving the amount otherwise paid out as wages. On the other hand, owners of large successful restaurants earn good incomes.

General Prerequisites for Restaurant Ownership

The restaurant business differs from most others in that it

combines aspects of manufacturing, retailing, and the service trades. The preparation of food is a processing job requiring considerable knowledge and skill. In selling the finished product to the consumer, the restaurateur encounters most of the problems of the small retail merchant. And, since the merchandise sold in a restaurant is consumed on the premises, the restaurant operator has to deal also with the problems common to the service trades.

Moreover, because of the public health aspects involved, the restaurant industry has a social responsibility. Few businesses have a more vital influence on the health and well-being of the individuals within a community.

Personal Prerequisites

Certain aptitudes and personal qualities are essential for successful operation of a food-service business. First as previously indicated, you must like food and people. You must know good food and be interested in establishing the highest standards, no matter how simple the menu. This may seem to be an obvious statement, but the fact is that some people with little interest in or knowledge of food go into the restaurant business. They consider it comparable with any other type of manufacturing and sales. As long as such persons have a capable staff, they may be able to get along. When competition becomes keen, however, those without interest in or knowledge of foods do not do well. Imagination and constant effort to improve old practices and develop new ideas, with daily attention to the many details required to turn out good food, are possible only if you are seriously interested in this business.

The second important requirement, pointed out earlier, is that you like people. The restaurant business is based on personal contacts with both the public and with employees. If you like people, like to be with them and work with them, you are likely to be successful in your relations with your clientele, your business associates and your employees. If you like people you are sure to be courteous and pleasant, fair and tolerant. Such attitudes are essential in building confidence and morale among employees and in making customers feel that they are welcome guests whose patronage is appreciated. Bear in mind that the manners and attitudes of the manager or owner are reflected by his employees, whose treatment of customers and each other is an important factor in business success.

A third essential is that you must like business per se. A famous recipe for pies and the ability to get along with people are not enough for a successful restaurant operation. A restaurant, no matter how small, is a business requiring a high degree of technical

knowledge, constant and intelligent supervision, and daily control of operating costs. It is run within a legal framework of changing regulations concerning food, storage, handling, health of food handlers, garbage disposal, building codes, fire protection, safety requirements, minimum wages, hours, and working conditions of personnel.

From a third to a half of the restaurant income is spent for food; upon your knowledge of quality, type, season, yield, new methods of processing and packaging of these materials depends the excellence of your product and your financial success.

You spend large amounts of money on equipment. Its efficiency and the layout will largely determine your capital outlay and basic operating costs.

You need a head for figures and a business interest in costs and methods of cost control. You must apportion the proper percentages of income to food, labor, maintenance, replacement, depreciation, and other operating costs. You need to know how to arrive at a fair selling price. You should understand accounting procedures and be able to interpret your profit-and-loss statements.

You need to know how to handle rent, insurance, purchases, sales, and labor problems. You are likely to have to establish financial credit with banks for the negotiation of loans. The successful operator enjoys the business problems relating to materials, personnel, and money which confront him each day, problems which he must solve with skill and enthusiasm.

Improved operating techniques, better merchandising, and acceptance of the importance of the industry have given stature to the restaurant business. Opportunities in this vast field of endeavor were never brighter for men and women with the proper enthusiasm and attitude for the challenges of an interesting and rewarding business.

Disadvantages of Restaurant Ownership

Operating a restaurant likewise has disadvantages. The work is hard and the hours are long and irregular, particularly in a newly established small restaurant. In general owners and employees work when their customers do not since they must open up before their customers go to work and remain open in the evenings after their patrons finish work.

The task of food preparation requires constant supervision, and in a very small eating place the owner must do the cooking himself. He must do the purchasing and keep in contact with his suppliers. He must see that the kitchen and dining area are kept spotlessly clean.

In all he must be a self-starter, a planner and at the same time have a liking for detail. This requires a great deal of work, and unless the prospective owner has the capacity and willingness to assume responsibility, he should not consider entering the restaurant business.

Restaurant Discontinuances

Many people who start in the restaurant business give it up in a short time. Approximately one-third of the operators entering the business discontinue by the end of the first year. During the second year another 15 percent go out of business, and by the end of 5 years, fully 80 percent either close down or pass into other hands.

As a matter of fact, not all discontinuances represent complete financial failure, for often the owner gets out after he has discovered that the going is rougher than he expected. Some owners discontinue without a loss or even sell out at a profit. Others get out of the restaurant business because they have found some job that pays better. But, of course, many quit the field because they have failed to make a success of it.

Causes of Failure

There are two main reasons why restaurant owners are forced to liquidate—general business conditions over which the owner has no control, and improper management.

General business conditions.

1. The effect of stagnating industries on the whole community.
2. Floods, fires and tornadoes.
3. Deteriorating neighborhoods.
4. Building of new highways which may divert traffic, and consequently reduce business to a point where it becomes impossible to operate profitably.

Failures brought about through floods, fires and tornadoes can be lessened by carrying sufficient insurance.

Improper management. Most failures, however, are caused through a lack of proper management. Not everyone who desires to establish a business is competent to do so. Lack of training, unwillingness to devote the long hours necessary in the restaurant business, undue optimism, and failure to keep adequate records are reasons why many restaurants are unable to operate at a profit. Then, too, many operators are poor financial managers. They pay more than necessary for supplies of food, or they employ inefficient or unnecessary workers. Likewise, many owners put more of their capital into equipment and buildings than they can properly utilize, leaving themselves with insufficient working capital.

CHAPTER III

HOW TO ENTER THE RESTAURANT BUSINESS

To become the owner of a restaurant you can either buy an established business or start a new one. The following pages will help you decide which is best for you.

BUYING A GOING BUSINESS

Advantages and Disadvantages

Buying a going business has certain definite advantages.

1. The business sometimes can be bought at a bargain price. An owner who wants to get out of business for personal reasons may be sufficiently anxious to sell to give the purchaser a favorable buy. It is sometimes possible, also, to pick up at a low price a business which has been unprofitable but can be made profitable by good management.

2. You pick up the existing goodwill, acquiring an established patronage. This gives you a certain volume of business which can be more or less accurately predicted, which reduces to that extent your risk as a new operator.

3. By eliminating that initial period of waiting for business to build up, your income starts quicker, with less drain on your resources.

These benefits may, however, be offset by disadvantages, some of which are listed:

1. The owner may have had a bad reputation, in which case you would be battling customer prejudices—a definite handicap.

2. Although the going business inherits certain customers who habitually eat there, you must face the fact that many potential customers have formed the habit of *not* patronizing the restaurant.

3. If the former owner has made a poor choice of equipment, arranged the restaurant badly, or been unwise in his menu selection, you will be associated with his mistakes and suffer until you

remedy them and until the public realizes there has been a change in management.

Investigate First!

If you decide in favor of purchasing an established restaurant, you will find many from which to choose, for eating places frequently change ownership. Obviously some will be good buys and others will not. Each one must be judged carefully on its own merits. It is essential, therefore, that you get all possible information about the business before investing your money. Following is a suggested step-by-step procedure you might well follow to be more certain of investing your money wisely.

1. Why does the owner wish to sell?

- (a) Does the owner really want to sell for family or personal reasons? It is simple to find out if there has been a death or a change in the family situation.
- (b) Is the neighborhood changing so that the need for the specific type of food service offered by the restaurant no longer exists? You can probably get the answers by consulting the chamber of commerce, bankers, or other businessmen.
- (c) Is the business operating at a loss? Inspect the records on which he bases the value of his equipment and inventory, his volume and trends of sales, average checks, payroll and owner's salary—in other words, his entire operation picture. Profit-and-loss statements should not be accepted without verification from the original records, and this should be done by an accountant or lawyer trained in accounting.
- (d) Has the lease expired? Is the landlord willing to renew on the same basis? If not, why not? The landlord should be consulted for this answer.

2. What are your chances of continuing the operation successfully?

- (a) If the restaurant is operated in rented property, is the lease favorable to the lessee? Any lease should be checked by a legal advisor.

What is the rental in relation to verified volume of sales? It should be around 5 percent. If the lease is graduated, what is the annual increase? Where the rental asked is a reasonable amount for the location, no percentage should be paid on the volume of sales. Percentage leases should be made only when the minimum fixed rental is below what is considered reasonable for the location. In such cases the landlord is taking a risk with the tenant and may be entitled to a percentage on the sales volume.

What is the length of the lease and can it be renewed? Unless there is good reason for a short-term lease, this is usually unsatisfactory. It would be unwise to make expensive alterations and to install fixed equipment for too short an occupancy; a 3-to-5 year lease is considered a good minimum term. An option to renew for an extended period thereafter is a desirable feature.

Who pays for building alterations and repairs?

What security is necessary, or how much advance rent is required?

Are other restaurant privileges permitted in the same building

or area, or does your lease give you exclusive rights to the extent the landlord can grant them?

- (b) Does the landlord furnish water, heat, steam, or other service as a part of the rent? If not, the rent should be correspondingly lower.

Are these utilities on joint or separate meters? Is the tenant required to purchase any utility service from the landlord? If so, is the rate in excess of what it would be if purchased direct from the public utility company?

- (c) If buying the business involves the purchase of real estate, there are other considerations. Is the building in good condition? Is it modern and fireproof? What are the insurance costs? Does it supply other features, such as a home for the family or additional space which may be rented now and used later for expansion?

Are plumbing, sewage, water, lighting, and heating and cooking fuel arrangements satisfactory?

Is the price of the building in line with values for similar property in the neighborhood? Check this with real estate brokers and your attorney.

Is the title clear and the property adequately described? Have your attorney find out.

Are you in a financial position to assume or finance any mortgage which may be held on the property?

- (d) What outstanding obligations of the business must you assume?
(e) What is the labor situation in the community? Can an adequate number of acceptable employees be obtained?
(f) What is the condition of the front of the building?

Is redecorating necessary either for cleanliness and attractiveness or to change the general appearance of the place?

Do the furniture and furnishings need to be replaced or can they be modernized with paint and scrubbing?

Is a major expense such as air conditioning necessary in order to meet competition?

- (g) What is the situation in the work areas? How old are the range, refrigerator, preparation and dishwashing machines?

What is their condition and possible future usefulness? You should be qualified to appraise this equipment, but if not, a kitchen-equipment engineer may be consulted.

Is the layout efficient?

Are facilities for refrigeration and storage of staples adequate?

Are there enough cooking utensils, china, glass, and silver and are these in usable condition?

What are the provisions for hot water for cooking and dishwashing? Are these tied to the heating system; if so, what arrangements are made for summer operation?

Is the drainage adequate, as observed following a heavy rainstorm?

Is the piping clear? Try all faucets for flow and pressure and note any sediment which may indicate rusted pipes. Are all sinks and other drainage outlets equipped with traps? Is the ventilation good and does it conform to local regulations?

What is the general impression of cleanliness throughout the area? A dirty kitchen denotes either inadequate facilities or a low

standard of performance in service. Ill-kept equipment is likely to have limited future usefulness.

- (h) What is your competition? Visit all restaurants in the neighborhood. Compare appearance, clientele, prices, and quality of food with that in the restaurant you are considering buying.

Estimating Value of Business

Certain things must be investigated carefully to determine the value of a going business. The chief assets and liabilities of the seller should be separately evaluated.

Fixtures and equipment. One of the most important is the worth of fixtures and equipment.

You must realize that you are buying secondhand furnishings and equipment; these are worth only a percentage of their original value, depending on age and condition. The value new, nevertheless, is a convenient starting point for the appraisal. By shopping in both the new and secondhand markets you can see how much it would cost to purchase the furnishings and equipment on the outside. You can get evaluations from local dealers in new or secondhand equipment or from maintenance representatives, or you can have an appraisal made by a kitchen-equipment engineer or an appraisal company.

It is well, when buying a going business, to make sure that the owner did not overextend himself on fixtures and equipment. Many a small restaurant operator makes the mistake of buying fixtures too big and too expensive for his volume of business, and by doing so ties up precious capital.

Find out if there is a mortgage on the equipment.

An affidavit should be obtained from the seller stating that the fixtures and equipment have been fully paid for and are free from mortgage. If they have not been paid for in full, check with the creditor or mortgagee to determine how much is still owed.

Profits claimed. These should be tested carefully for authenticity. Naturally the seller tends to exaggerate the good features of the business he is selling. If it is a well-organized establishment, he should be able to give the prospective buyer a profit-and-loss statement covering several previous years. Such a statement is more convincing if prepared from the seller's income tax returns. In any event, it would be wise to check the results shown on the statement against the average figures which might reasonably be expected from the sales volume claimed.

Goodwill. The next item to be checked is the seller's estimate of the value of the goodwill of the business. Goodwill may be considered as the difference between an agreed-upon appraisal of the fixtures, equipment, and other tangible assets of the business

and the asking price. It is the amount which the owner is asking for the favorable public attitude towards the going concern.

A good way to test whether or not this sum is exorbitant is to compare it with the annual profits, over and above the owner's salary.

Liabilities. Generally it is not desirable to assume the liabilities of a going business. The better arrangement is for the seller to agree to pay off the debts which he has accumulated and deliver the business free and clear. You should be sure he actually does this before paying all the money agreed upon. For instance, most States have bulk sales laws to protect creditors in the event that a business is sold and a new owner gets the assets which they have relied upon to protect their claims. If these laws are not complied with, creditors may claim the assets which the unwary buyer has already purchased. If the liabilities are assumed by the purchaser only the difference between the agreed-upon value of the assets and the assumed liabilities will be paid. This is a possible advantage to the buyer in that it reduces the amount of cash that will have to be paid for the business.

Capital required to purchase a going business is, of course, determined by the price finally agreed upon by the buyer and the person selling the business. An idea of typical sales prices for various types of restaurants may be obtained by looking at the advertisements in newspapers and restaurant magazines. The price should not differ greatly from the amount necessary to set up a new restaurant, which is discussed later in this chapter.

Legal advice obviously should be sought before the transaction is closed. Certainly both buyer and seller will want a lawyer to draw up the agreement in order to protect both parties fully.

STARTING A NEW VENTURE

Adequate capital is essential in starting any new business. There never seems to be enough. It is important therefore that this capital be used carefully. The two major questions which need to be answered are: What capital expenditures are necessary? How much should be spent on each?

Building

The first item on the list—a most important one—is the building. You cannot work out a budget or plan for your equipment until you know how much of your capital must be put into the building.

For the newcomer in the restaurant industry, it is extremely hazardous to tie up capital in purchasing or erecting the building

for the restaurant. It is much wiser to lease space in the selected site. In selecting the building and negotiating the lease, the points discussed earlier in this chapter in connection with the purchase of a going business should be considered.

Unless the space has been used previously as a restaurant, it is likely that considerable alteration will be necessary. After tentatively arranging for the dining room, kitchen, all facilities, front of building, entrance and exits, and for the location of important pieces of stationary equipment, these plans must be checked for connections of utilities and contemplated structural changes.

A builder, architect, or engineer can estimate the approximate cost of remodeling. He can tell whether it will be necessary to run new electric, gas, or water lines to the building, whether partitions can be removed, whether the floors are strong enough to carry heavy kitchen equipment; he can tell what has to be done to make the building conform to local and State sanitary codes.

The cost of remodeling a building often equals or exceeds the cost of the equipment. Sanitary walls and floors, toilet facilities for both employees and guests, heating and ventilating systems, adequate sewer, water, electric, gas, and refrigeration lines are all expensive items. First-floor space is sold at a high rental per square foot and it may be desirable to use basement or upper-floor space for dishwashing and locker rooms. This would necessitate dumbwaiters or an elevator. A new front is often both necessary and desirable from an advertising standpoint.

In line with this matter of capital cost you should bear in mind that the premises are owned by the landlord and any money which you as lessee put into the building structure proper at once becomes a part of the landlord's property. On the other hand, completed equipment which is moved into the building and merely set in place or attached to utility supplies is tangible property which belongs to you.

It is highly desirable that the landlord should be responsible for all plumbing and electrical roughing-in to the point of making ready for connection to the equipment. He should also provide for the ventilation and the actual structural characteristics of the premises such as partitions, doors, and floors. Under such circumstances you would merely move in the fixtures and the outlay for installation and connections to the utilities would be relatively modest.

Unless these favorable conditions can be obtained as part of the lease, it is better to look elsewhere. For, if the owner is unwilling to make the alterations and charge them off as additional

rental, you will have to pay cash for all remodeling and installation costs.

Zoning

Zoning is another very important question that must be investigated carefully by you and your attorney, whether you are buying a going business or starting a new venture. Local zoning regulations must be checked to see how they apply to every phase of the business you plan to operate—service of food, service of alcoholic beverages and other nonfood items, music and/or entertainment, length of business hours, etc. Remember, too, that zoning for restaurant applies to vacant land to be used for parking.

Fixtures and Equipment

How much of your capital should be reserved for fixtures and equipment? You can get an idea by setting a goal as to sales volume and then calculating the capital needed to reach that figure, or you can start with the capital available and estimate the sales you should get with that investment. In any case, capital requirements are related to sales volume, for in general equipment needs depend on the amount of business to be done.

This relationship between the size of the business and the amount of capital required for fixtures and equipment may be figured in three ways:

1. The experience of many successful operators indicates that a ratio of 1 to 4 of investment in fixtures and equipment to annual income is a fair figure for a new venture. In other words, a new small restaurant anticipating annual sales of \$50,000 should earmark \$12,500 for fixtures and equipment, exclusive of major building repairs, decoration cost, and working capital.

This capital investment, if wisely spent, provides equipment and furnishings which should be adequate for an expanding volume of business. It is always wise, however, in making a budget for a new business, to figure on the lowest income that can justify the investment.

2. The second method of estimating capital outlay for fixtures and equipment is on the basis of cost per seat. Experience has shown that it is possible to equip and furnish with attractive simplicity a small service restaurant seating 50 persons at a cost of approximately \$150 to \$200 per seat, or a total of \$7,500 to \$10,000. A restaurant with lunch counter service having 20 stools may be equipped and furnished at a cost of approximately \$200 to \$300 a seat or \$4,000 to \$6,000.

A cafeteria may be equipped and furnished at a cost of \$200 to \$300 a seat. Operators agree, however, that to be successful a cafeteria should have a minimum of 150 to 250 seats. This means that such a business should only be operated in a location in which a large patronage is assured. The original investment would have to be from \$30,000 to \$50,000, and the annual volume of sales for this type unit should be five times the investment to insure a paying business. Remember that these figures are for fixtures and equipment only and do not include major building or decoration costs or working capital.

3. The most accurate way to ascertain the capital required for fixtures and equipment is to get actual cost figures for every item that will be needed for the type and size of restaurant selected. This method is a check on the estimates just suggested. Of course, costs for necessary remodeling and decoration should also be known in detail before finally embarking on the venture.

The illustration below shows the cost of new equipment for a small lunchroom anticipating annual sales of \$50,000. In addition to capital investment in furnishings and equipment, working capital requirements are also set forth.

Approximate equipment cost figures for the small lunchroom are used without regard to discounts which might be obtained, and allow a modest figure of \$750 for structural changes and decoration, and \$350 for installation charges. While the items listed under working capital are approximations, they serve to illustrate some of the important expenses which will require cash on

Illustration of a Typical Plan for Expenditure of Initial Capital

Capital expenditures

Kitchen equipment and installation		\$5,050.00
Small equipment:		
China, glass, silver	\$375.00	
Utensils	285.00	660.00
Service and dining room equipment		2,710.00
Structural changes, decoration, ventilating and lighting ...		1,100.00
Office furniture		115.00
		9,635.00

Working capital

Organizational expense	\$300.00	
Preopening expense	300.00	
Deposits with public utility companies	200.00	
Food inventory	250.00	
Rent—initial period	625.00	
Wages—initial period	700.00	
Emergency fund	500.00	2,875.00
		\$12,510.00

hand. Each item must be carefully developed for the particular situation, and it is better to overestimate rather than underestimate them.

For a small combination counter and table-service restaurant the cost of equipment and fixtures, as listed in Chapter V, would be about \$8,100. A service dining room seating 100 should cost about \$16,000, and for a cafeteria seating 200 the equipment should cost \$45,000, exclusive of installation costs, structural changes and decoration. Air conditioning and special features of decor or design will increase the cost.

The total investment required for these various types of restaurants again would depend, of course, upon the amount to be spent on major repairs, changes, and decorations, and the amount required for working capital. No satisfactory general estimates of these requirements can be given, because they vary so much, depending on circumstances. The experience of a number of small operators has shown, however, that it is desirable to have from one-third to one-half of the value of capital assets for a working fund.

Working Capital

In addition to the capital required for alterations, equipment and furnishings in a new business, a cash reserve, or initial working capital, must be set aside to cover expenses until such time as the regular income from operations is sufficient to do so. Following are some of the items that will have to be paid out of this fund:

1. Organizational expense prior to acquiring or opening the business, such as legal expense, advisory fees, and personal living costs.
2. Preopening expenses: Cost of getting ready for restaurant opening, cleaning supplies, advertising, insurance, freight and express charges, change for the cashier, etc.
3. Deposits for all public utilities equal to about two or three times the anticipated monthly bills.
4. Opening food inventory; this should be about the equivalent of three days' sales. It is well to have a liberal inventory for the opening days, as purchases may be reduced if initial sales are not as high as anticipated.
5. Amount to cover two or three months' rent; this is not always required in advance but should be available.
6. Amount to cover payroll for at least two weeks.
7. An emergency fund, as large as possible, for unexpected expenses which are sure to arise.

Owner's Investment

It is highly desirable to have in cash the entire initial investment. If this is not possible, at least 60 percent of the amount needed for furnishings and equipment should be in cash. The balance of 40 percent may be covered by deferred installment payments on major items of kitchen and dining room equipment.

When equipment is purchased on the deferred payment plan, arrangements should be made, if possible, to have the first installment fall due not earlier than 90 days from date of opening. Where this cannot be done, allowance for the required payments for the first three months should also be budgeted as a part of initial working capital as experience shows that there are usually insufficient profits during this period to justify reliance on them to meet installment payments.

FORMS OF BUSINESS ORGANIZATION

Most small restaurants are started by a single individual and operated as sole proprietorships, but some are initially organized as partnerships or corporations. Which type is best for you must be one of your first decisions. Several of the factors which should carry weight are listed here.

1. The type of business.
2. The number of people who will participate in its ownership.
3. The size of the enterprise.
4. The amount of capital invested.
5. The need for outside financing.
6. Tax considerations.
7. Expense of organization.

The principal features of each form of organization are described briefly. It is recommended that you obtain the advice of an attorney before making a definite choice.

The Individual Proprietorship

The individual proprietorship is owned and operated by one person, who supplies all the capital, takes all the risks and enjoys all the profits.

Use of trade name. The individual may do business under his own name, in which case no preliminary organizational steps are required, or he may operate under a trade name. In the latter instance, instead of using his own name, the proprietor does business under an artificial name.

State law generally requires that the owner first register the trade name at some recording office—usually the county clerk's office—together with his own name and address. Thereafter, the

owner will be addressed in official and legal papers somewhat as follows: "John Doe, doing business under the name and style of The Quality Restaurant."

Operating under a trade name does not reduce the owner's liability to creditors. In fact, whether you go in business under your own or a trade name, all of your property both business and personal, is subject to the payment of your business debts, and not merely those parts of your resources which are devoted to the business.

Use of "and Company" or "& Co." In many States the law prohibits the use of "and Company" or "& Co." unless there actually are co-owners in addition to the one or more names in the title. Further, the name or names comprised in the "Company" must be identified by registration as in the case of trade names. Words in the title which imply, contrary to fact, that the business is incorporated are prohibited.

Advantages and disadvantages. Individual proprietorship has certain obvious advantages, including single-minded control, flexibility, and the intangible reward that the owner derives from a feeling of independence. On the other hand, the operations of the owner are limited by the extent of his capital and experience, and the success of the enterprise often depends on his continuous personal attention to the business.

The Partnership

A partnership is the association of two or more persons in the conduct of an enterprise. The rights and duties of the partners toward each other and toward the public are regulated by the partnership agreement and by the State partnership law.

The partnership agreement is a contract made between the partners. It sets forth the capital and service that each is to contribute, the share of the profits to which each is to be entitled, and other details concerning the relationship of the partners and the operation of the business.

While a written contract is not required in some cases, it is advisable to reduce all the terms of the partnership agreement to writing, having it drawn by competent legal counsel.

Partners, like individual proprietors, may operate under a trade name by complying with the same registration requirements.

Kinds of partnerships. In a general partnership each partner is personally liable for all the partnership debts. However, while creditors are privileged to obtain payment from any one of the partners, the partner who pays is generally entitled to recover his proportionate share from the other. Moreover, under the laws

of most States, creditors must exhaust partnership assets before proceeding against the private property of any one partner.

Under certain conditions, it is possible for property, even real property, to be owned in the name of the partnership. Therefore, keeping careful partnership accounts is especially important to insure that a sharp distinction is made between partnership property and the private property of the individual partners.

Provided there is at least one general partner, a partnership upon complying with certain legal requirements may include one or more limited partners. A limited partner contributes certain stated amounts to the partnership capital on condition that he shall not be held liable for partnership debts beyond the amount contributed. The legal formalities required to protect this condition usually include registration in the public records office and publication of formal notice in one or more newspapers.

Care in arranging partnership. The foregoing serves to emphasize the importance of taking extreme care in formulating the partnership agreement. However, you should not rely entirely on the partnership agreement and the law. Rather, these should be regarded as supplementing and clarifying the real bonds of partnership, confidence and trust.

Advantages and disadvantages of partnership. An obvious advantage of a partnership is that it permits pooling the capital, skill, experience, and business contacts of two or more co-owners, thereby increasing the scope of the business and enhancing its credit standing.

A principal drawback arises from the presumption in law that each partner has an equal voice in the management of the business unless the partnership agreement provides otherwise. A further disadvantage is that each partner is the agent of all the others and the firm itself and may legally bind them by actions he may take within the scope of the business.

Since partnership is dissolved by the death of a partner, such a death involves a serious hazard to the continuity of the business and also to the interests of the surviving partner or partners and the heirs of the deceased partner; this, however, can be avoided through an adequately insured "buy and sell" agreement establishing the evaluation in advance (see Chapter VI).

Although partnerships, unlike corporations, are not separately taxed under Federal income tax law, the Internal Revenue Code of 1954 sets forth the first comprehensive treatment of partners and partnerships. A partnership must, however, file an annual information return, and each partner must include in his individual return his distributive share of certain of the items reported by the partnership whether or not they were actually distributed.

The Corporation

A corporation is an instrument for the ownership and management of an enterprise that enables a person to invest a given sum in an enterprise without becoming personally liable for its indebtedness beyond the amount invested.

The peculiar characteristic of this form of organization is its status as an artificial being or entity separate and apart from its stockholders, officers, and directors, so that it may sue or be sued without usually affecting the individuals.

A corporation comes into existence when a certificate of incorporation or charter, signed by three or more incorporators or prospective stockholders, is accepted for filing by the appropriate State authority. Thereafter the corporation is authorized to own property and conduct the type of business specified in the charter.

In exchange for property or money capital, the corporation issues shares of stock to the stockholders. Such shares, representing the stockholder's interest in the organization are readily transferable.

Incorporation is not limited to large enterprises. In fact, there are thousands of corporations with only three or four stockholders and a small scope of activity.

Advantages and disadvantages of corporation. Although the small corporation offers many advantages, such as limited liability, central management, transferability of ownership of shares, flexibility, and so on, certain disadvantages must be considered. One is the cost of incorporating, to which must be added subsequent franchise, capital stock, and stock transfer taxes.

Another drawback is the difficulty some small corporations may encounter in obtaining credit, since the potential creditor knows he cannot proceed against the stockholders personally to satisfy a debt of the corporation, which is beyond the ability of the corporation to pay from its assets.

Finally there is the matter of taxation. The earnings of a corporation are taxed twice: The corporation pays a tax on its profits, and the individual stockholder pays a personal income tax on the dividends he receives when the profits are distributed.

If your investment in the corporation represents only a minority stock interest, make certain that your lawyer adopts proper legal safeguards, such as a contract of employment, a voting trust agreement, or a classification of the voting stock to insure your place on the board of directors.

CHAPTER IV

SELECTING A LOCATION

The first steps it is necessary to take when going into the restaurant business include selecting a location, obtaining capital, selecting a suitable form of business organization, purchasing proper equipment and supplies, and hiring personnel.

The present chapter deals only with the matter of selecting a location, to which problem considerable time and planning should be devoted. Many multiunit retail organizations rely upon specialists for advice when considering a location. These experts have developed techniques which enable them to select locations with remarkable accuracy.

Two methods of approach are commonly used in selecting a location. Most restaurant operators start with a particular type of restaurant in mind and then try to find a suitable site. Others examine the possibilities of a number of locations, select one or two that seem to have the greatest potential and then attempt to fit the restaurant to the site.

Selecting the Town

While prospective restaurateurs generally prefer to start business in a town they know best, other factors must be objectively considered. Is the community expanding, alive with the spirit of growth? Such communities can and will support good restaurants. If the intention is to open a cafeteria, the town must be large enough to support one. Few cafeterias have been successful in towns with populations of less than 35,000 to 50,000. On the other hand, a smaller community may very well support a small service restaurant. The point is the type of restaurant operation must suit the town and vice versa.

Selecting the Neighborhood

The type of eating place planned also determines the neighborhood to be selected. Each area in a community can be classified as basically office, shopping, theatre, hotel, amusement, apartment, suburban-residential, roadside, or even a combination of these.

The restaurant owner must consider all of the factors influencing the movement of groups of people likely to be his potential customers.

Cafeteria operation is usually best in a business or industrial area having a large volume of pedestrian traffic over several hours of the day and night.

Theatre districts attract customers to night clubs, supper restaurants, and the like. Amusement areas, drive-in theatres, and athletic stadiums help create potential customers for drive-ins and hamburger stands. Department stores attract customers for cafeterias and tearooms. Bus depots and railroad stations are good areas for lunch counters. Heavily travelled highways support diners, drive-ins, hamburger stands and similar quick-service, inexpensive establishments.

Whatever the particular neighborhood most suitable for the type of restaurant, it is well to select one that is growing. No population center remains constant for long periods of time and great care should be exercised in evaluating the possibilities for growth of any neighborhood you are considering.

Large shopping centers have been built in the suburban areas surrounding most large cities and these might well be explored to determine if they provide adequate restaurant facilities.

Competition. Competition is, of course, one of the most important factors to consider in selecting the site for a restaurant. Any section, no matter what its merits might otherwise be, often proves to be a bad one in which to locate if too many good eating places are already there.

However, the fear of competition has unnecessarily frightened many restaurant operators. The person who starts a new restaurant in an area where other eating places exist can succeed by capitalizing on the competitors' weaknesses. Study their menu, service, sales promotion, prices and business hours.

Potential Sales in Neighborhood. Although the figures for total restaurant sales as related to income are available from census reports for towns and cities, these reports are not available for community areas within cities. However, these figures may help you estimate your potential sales. For example, a good measure of the income level in the area you are considering can be obtained from the local rentals which predominate. For practical purposes, monthly rental or ownership expenses is presumed to be about 25 percent of family income. Thus a rental payment of \$100 per month would indicate a family income of \$400 monthly, or \$4,800 annually.

The percentage of income spent for food, consumed both in and

away from homes, varies at different income levels, but a fair average of 20 to 25 percent can be used. Expenditures in eating places approximates 10 percent of the total spent for food, or 2-2½ percent of the annual income. A family with an annual income of \$4,800 therefore, will spend approximately \$96 to \$120 on food consumed in restaurants.

If there are 1,500 families in the neighborhood each with an average income of \$400 monthly, the potential of restaurant sales would be \$144,000 to \$180,000. If other restaurants are in the neighborhood, they would get their portion of this volume. If actual sales exceed this figure it is safe to assume that the excess is being drawn from other neighborhoods.

Rent in Relation to Location. Before selecting a definite site it is also necessary to form an idea of the size of business you plan to operate, since the rent must bear a proper relationship to the sales volume. A study of restaurant operating data indicates that rent averages about 5 percent of volume. For instance if the proposed rent is \$200 per month, sales must be approximately \$4,000 per month, or \$48,000 annually. If seating capacity, anticipated turnover, and type of clientele do not warrant expectation of this volume, another site must be chosen, or the plan for the business must be changed.

Selecting the Site

In the selection of the actual building for the restaurant, one of the first things to be considered is its access to transportation. If customers come by automobile parking space will be an absolute necessity; you will probably have to provide it, since few restaurants should depend on street parking. A hydrant in front of the restaurant, for example, will prevent parking and delay deliveries. Lack of a rear entrance and alleys will mean that trucks will take up space in front of the building.

A good spot for certain types of restaurants is near and "on this side" of a streetcar or bus stop, not across the street and beyond it. Transfer points are particularly good, as are bus and railroad depots. Location here determines the amount of potential customer traffic.

Before selecting the site it is a good idea to clock the traffic, that is, count the number of people and of automobiles passing the proposed location. Be sure this covers the hours involved in your plans, and is fully representative as to weekdays and Sundays, good weather or bad weather.

If a proposed site appears to meet all your requirements, it will be helpful before making a final decision to prepare a rough map

of the area, drawing a line around the location to include the area from which you will probably draw your clientele. Spot on it the location of the shopping center and key businesses. Mark eating places with special symbols to indicate the size, character and location of competition.

At first glance you may feel that all this detail in selecting a site is unnecessary, but when you remember that your location will affect your earnings every day you are in business, you will appreciate the value of making a careful choice.

The building should be such as to lend itself to efficient restaurant operation. Back-door entrances for receiving goods and disposing of refuse are almost indispensable. Be sure to consider the extent of alterations which will be required.

Many mistakes are made in selecting a location. If the choice is bad the business is handicapped from the start. The selection of the location can make or break you.

A further note of caution—be sure to check local zoning regulations as they apply to the site and type of business you intend to operate. Consult your attorney.

CHAPTER V

FURNISHINGS AND EQUIPMENT

Because every restaurant has its own individuality, it is possible to state only general principles for guidance in buying furnishings and equipment. These will have to be modified to fit the specific situation. The prospective restaurateur will find this chapter useful for the purpose of selecting those items of furniture and equipment best suited to his needs.

BASIC REQUIREMENTS

Ventilation

Adequate ventilation is a “must” in any place where food is prepared and served, both from the standpoint of removing objectionable cooking odors and in providing comfort to guests. While natural ventilation is cheapest, it must always be aided in the kitchen by the use of a sufficient forced ventilating system over the cooking units. Where possible, it is desirable to have the fan on the roof of the building; otherwise it should be located in the wall nearest the cooking unit.

In many climates, where natural ventilation is not sufficient for the dining room, air conditioning has now become standard practice in all types of restaurants where guests comfort requires that the room be cooled in the summer as well as heated in the winter. In some cases it is necessary to connect the kitchen with the air-conditioning system. In such installations the additional expense is usually offset by increased efficiency and improvement in the quality of food produced. Larger restaurants find it more economical to install a central air-conditioning system, but the small restaurant should use the unit type, which can be removed whenever desired. The advice of a reputable heating and ventilating engineer is essential in the selection of the best system to be used.



Popular patio type dining areas can be used in connection with service restaurants.

Acoustical Treatment

It is general practice to treat dining rooms and frequently kitchens and dishwashing areas with acoustical materials which decrease noise. There are several types, some of which can be installed at a low cost. Here, too, the advice of a competent acoustical engineer should be obtained.

Lighting

An essential for the comfort of guests as well as for the efficient performance of duties by employees is good lighting. Food shows to advantage in a well-lighted room and looks dark and unattractive when the lighting is poor. Practically every restaurant owner realizes the necessity of providing good lighting for the employees for the reason that it greatly reduces fatigue and accidents. In a newly equipped dining service the lighting should average 8 to 10 foot-candles on the table surfaces and 15 to 20 foot-candles on cafeteria counters. Modern lighting fixtures are very attractive and when properly selected add much to the decorative scheme of the dining room. In some restaurants indirect lighting is used to good effect.

It is even more important that the kitchen and other areas

where food is prepared be well lighted. In these areas lighting intensity should average 15 to 20 foot-candles. Fluorescent lighting for work areas is especially effective. To increase effectiveness in the cleaning of vegetables such as lettuce, spinach, etc., too much emphasis cannot be placed on the need for good lighting. Lights may be placed where required under table tops to light shelves, and so located that they light areas under sinks and other equipment. Storerooms should be well lighted if they are to be kept clean and well arranged. The minor additional cost of electricity will do much toward improving the efficiency of the entire operation, the safety of employees and the satisfaction of guests.

Floors and Walls

In addition to these general features, thought must be given to the dining room from the standpoint of attractive appearance. First of the essentials for good appearance is immaculate cleanliness. No matter how beautiful the furnishings and decorations, if the room is not spotlessly clean the effect is undesirable. Since we are concerned with a restaurant of moderate cost, it is very important to select furnishings which can be easily cleaned and maintained.

The floors and walls should be pleasing to the eye and so treated that they may be kept clean at low cost. Floors for dining rooms may be of a variety of materials, the selection of which is usually influenced by geographic location and by the decorative treatment of the room. Tile floors are used in many lunchrooms throughout the country, and in some cafeterias. Terrazzo (chipped marble in cement) is also pleasing in appearance, is easily cared for, and may be used in the same places where tile is suitable.

In service dining rooms and many cafeteria dining rooms a resilient flooring is often preferred, because it adds to the comfort of guests and employees and decreases noise. Linoleum and asphalt tile are very satisfactory when laid on a firm foundation. They should be lightly waxed with a water-base wax. Water should not be allowed to stand on them. Carpets such as are found in some of the large restaurants are not feasible for the small restaurant, because the expenses of cleaning and maintenance are prohibitive. Wood floors may be used with good effect if they are properly treated with a seal and light wax.

Quarry tile is the best type of kitchen flooring, because it does not absorb grease and moisture. Cement is porous and soon becomes stained and unsanitary. If however it becomes necessary to use a cement floor, a special chemical hardener, preferably with a red coloring added, should be used in working up the finished top surface. Resilient floorings in kitchens are undesir-

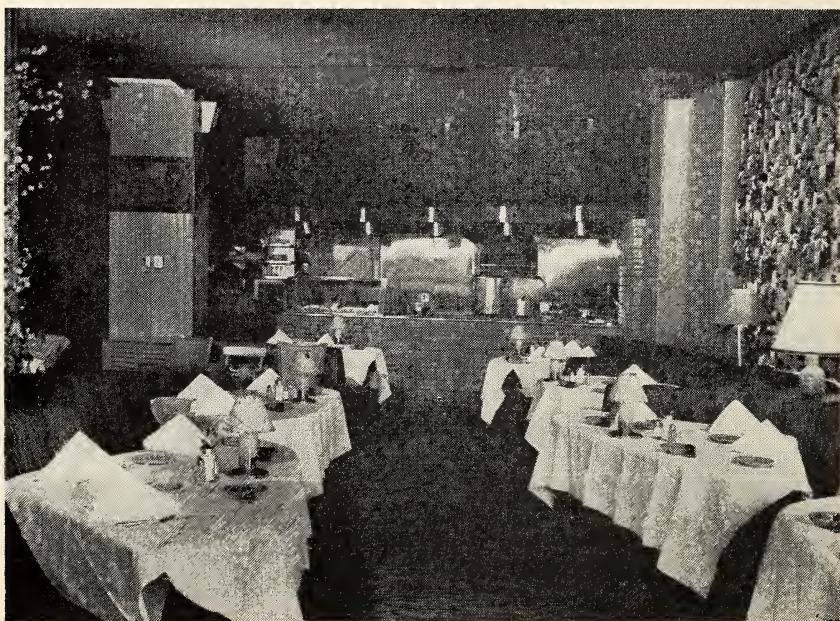
able, because they deteriorate from exposure to grease and moisture. A wood floor is porous, stains easily and is difficult to keep clean.

Painted walls are usually easier to maintain than those given other types of decorative treatment. The paint may be washable or the less expensive nonwashable type such as casein-based paints. If inexpensive paint is used, it offers the advantage of repainting when necessary at a cost little more than that of washing. All of these paints come in pleasing colors, and color is one of the most effective devices for setting an attractive atmosphere. Other materials, such as plywood, pressed board and composition panels, tiles, and washable papers, are now in wide use and should be investigated before a decision is made. Some of these materials have sound-deadening characteristics as well as pleasing decorative effect.

Kitchen walls should be painted above a washable wainscoting. Linoleum and composition tiles and panels are available for these wainscotings, any of which is more satisfactory than the wall tile frequently found in older installations.

Dining-Room Window Treatment

Window treatment is determined by the decorative scheme of the room. Venetian blinds of durable construction are easy to



Distinctive atmosphere plays a big part in word-of-mouth advertising.

clean and attractive in appearance where they fit into the rest of the decorative treatment. Many beautiful washable materials for draperies are on the market. Many of the nylon fabrics require no ironing. Glass fiber fabrics may be cleaned with a damp cloth. Textures should be such that lining is unnecessary.

DINING ROOM AND COUNTER EQUIPMENT

Dining Room

The dining room equipment consists principally of booths, tables and chairs for the cafeteria and service dining room, and stools and counters for the lunch counters. Some diners, where space permits, use booths in addition to counter stools. Booths may be made of plain wood, or with padded backs and seats upholstered in washable synthetic fabrics. In many instances these are custom-made to fit the available space. Tables seating two or four are satisfactory since they can be grouped to form larger units. Since many guests come in pairs or alone, some tables should seat two. In a small room it is best to use square and oblong tables. Where the size of the room permits some variety, a few round tables can be used.

Tables with pedestals are generally preferred to allow maximum leg room. All tables should stand squarely, and be equipped with silence domes. Those are devices attached to the bottoms of table and chair legs for the purpose of reducing noise and to avoid scarring floors. Most are adjustable to make the furniture level. Table tops should be finished so that they may be used either with or without doilies or linen. A satisfactory finish for wood tops is made by several treatments of hot linseed oil, sandpapering earlier coats after the oil has dried. Surfaces should be kept lightly waxed. In more common use are table tops of synthetic resins; these are easy to clean, are acid and burn resistant, and have a wide variety of patterns.

Restaurant chairs should be sturdy and comfortable, but light enough to be lifted by employees. They may be made of either wood or metal, with either solid or upholstered seats and backs. Covering materials treated with pyroclon on plastic are washable and durable. There should be some curve to the back of the chair to make it comfortable and it should be equipped with silence domes.

Side tables for waitresses are not necessary if the kitchen is easily accessible to all sections of the dining room and if waitresses use small trays which can be held while serving. A convenient arrangement for storage of china, silver, linen (where

used), and glass is a cabinet which opens into both the dishwashing area or kitchen and the dining room.

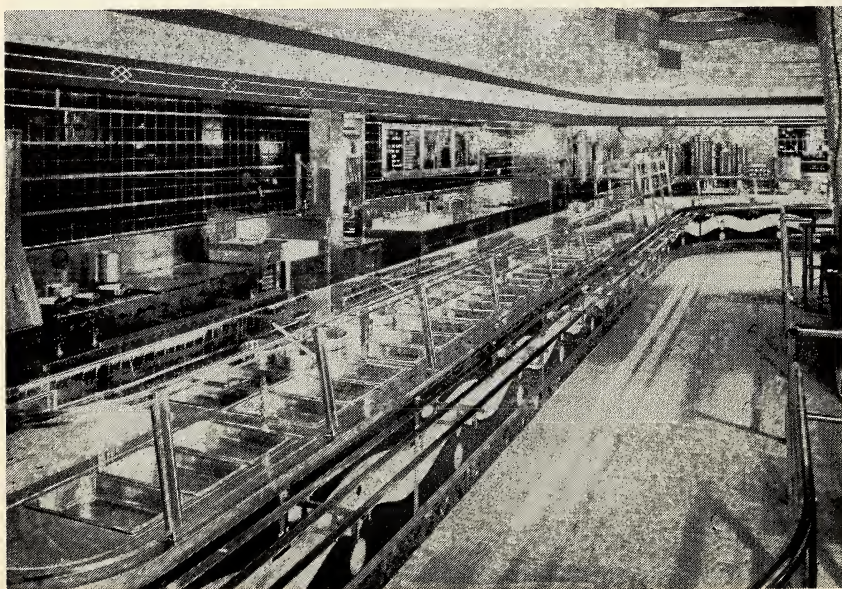
In some instances a refrigerator with a two-way opening for service for butter, cream, fruit juices, salads and cold desserts is used. Coffee-making equipment is often placed in the dining room.

Counter

In a lunch counter, stools with or without a low back are frequently used. If the counter is in a particularly busy area, some of the stools may be omitted to provide stand-up service. The counter itself may be constructed of various materials. Counter fronts should fit into the decorative treatment of the room.

Table-height counters, have shelves under the counter, but at higher counters some workspace for sandwich making and small rinse sinks may be placed there. If at all possible the sinks and drains should be stainless steel for sanitary reasons, for ease in cleaning and for appearance. Shelves should never be closer to the floor than 18 inches, nor deeper than 18 inches if they are to be kept clean.

Counter equipment should be carefully planned to conform with the menu, kitchen equipment, storage of dishes and silver, and paper supplies used at the counter, and the food to be pre-



Partial view of cafeteria counter, steam table section in foreground.

pared or kept there. Caution should be exercised to avoid the purchase of devices which are seldom used.

In a cafeteria, the serving counter is built to conform to the menu, while the front of the counter is selected to fit the decorative scheme of the room. The front may be plywood if the room is paneled in plywood, or plastic. The top of the counter in an installation on a long-term lease should be of stainless steel because of its appearance, ease of cleaning and durability. The section of the counter for the serving of hot foods should be planned to carry the number of items on the menu and should be built to suit the pans in which the food will be served. Deep pans are used generally for soups, gravies and sauces.

The hot unit may be heated either by gas or electricity. The shelves for dishes usually located under the hot unit should be heated.

Shelves which are to be used under the serving counter should be removable so that they may be easily used and cleaned. Counter space must be allowed for all items on the menu, as well as for trays, silver and napkins.

Coffee may be made either in urns, which are generally either stainless steel or glass-lined, or in vacuum coffee-makers.

A toaster is necessary in any restaurant serving breakfast or featuring toasted sandwiches. Size is determined by the capacity required.

PRODUCTION AND STORAGE EQUIPMENT

Guide to Selection

Certain working and storage equipment is required for any restaurant serving cooked food. Where the operation is large enough labor-saving machines and devices should be considered to hold costs down. However, mechanization can be overdone by the small or new operator. Many items may be purchased later as business volume and profits justify. Following are some suggestions for the selection of equipment.

Selection of equipment for production and storage of food should be guided by:

1. *Type of clientele.* This determines the menu, the size of the individual portion, and the number of persons who must be served at one time.

2. *Type of food to be served.* The menu is the determining factor in considering which pieces of equipment will be needed.

3. *Length of serving period.* This depends on the type of food served (to order or ready-cooked) and the number of courses.

4. *Location of the restaurant as related to buying facilities and frequency of deliveries.*

5. *New methods of food processing.* If food is purchased in a partially prepared condition such as precleaned, dehydrated, frozen or cooked and frozen, certain items of production equipment may be eliminated and the need for others modified. It is important to investigate the availability of these foods when planning the purchase of equipment.

6. *The length of the lease and the amount of money which may be spent for equipment.* This is particularly important in connection with most custom fabricated equipment which has to be constructed for particular locations. The durability and cost of such equipment should be weighed in terms of the lease duration. However, since many items of standard equipment can be readily moved from one location to another, these should be the best grade.

7. *Building features.* Size of rooms and location of structural features such as pillars, location of plumbing and heating connections, windows and ventilating provisions determine the size and type of some equipment.

8. *Fuel available at lowest cost per unit of heat.* Common fuels are gas (natural, manufactured and liquified petroleum) and electricity.

9. *Servicing facilities.* It is important to purchase standard equipment which can be readily serviced.

Regardless of the size of the operation, equipment should be selected for efficiency, durability, cleanliness and attractiveness.

While only equipment currently needed should be purchased, provisions should be made for future expansion.

Standard pieces, such as ranges and ovens, mixers, peelers, slicers and most dishwashing machines, are readily ordered. All equipment should be suited to the capacity of the available utilities, electricity, plumbing, etc.

For specially fabricated equipment detailed specifications must be given, including accurate dimensions, materials and features of construction. Dealers' prices on equipment do not usually include installation costs, which should be checked before placing the order.

Small restaurant operators are frequently tempted to buy used equipment. While this is occasionally warranted, careful consideration must be given in every instance to determine the condition of the equipment. Constant repairs may soon use up any savings gained from their purchase. Be especially careful of equipment, even if in good condition, for which parts are no longer available.

The are a great number of reliable restaurant-equipment dealers throughout the country. Most of their equipment engineers and salesmen have had years of experience in this field and are in a position to offer you sound advice as to which items you should select for your particular needs.

Common Items of Equipment for Small Restaurants

The following are the pieces of equipment commonly used in small restaurants. Not all small restaurants need all of these items, of course.

Storage of food and supplies:

- Scales; platform scale if required
- Shelving, metal if possible
- Metal cans, on dollies (small trucks) or equipped with casters
- Refrigerators as required

Food preparation:

- Range, one or two sections, with ovens or skeleton range and two-deck bake oven
- Hood over cooking equipment, with exhaust fan
- Peeler
- Slicer
- Mixer, with attachments
- Deep-fat fryer, portable or as part of cooking unit
- Sinks
- Tables as needed
- Refrigerator for prepared foods
- Cooking utensils

Optional food preparation items which may be required:

- Small cutters and cubers, foodcutter, steam-jacketed kettles, separate juice extractors, broiler, griddle.

Cleaning:

- Dishwashing machine with soiled and clean dish tables, if possible, or 3-compartment sink
- Sink for soaking, or spray attachment over soiled dish sink
- Sink for washing pots and pans. Vegetable sink may be used in a very small unit for both preparation and pot washing
- Portable racks for storage of pots and pans
- Mop pails with wringer
- Wet mops
- Floor brush
- Rack for cleaning tools
- Dry mops and brooms
- Hand sink for employees
- Slop sink
- Closet for cleaning supplies

Miscellaneous:

- Table scales
- Hand truck, one or more
- Garbage cans, with dolly trucks for each
- Towel rack
- Lockers for employees
- Couch, chairs, and mirror for employees' restroom
- Liquid soap container

Storeroom Equipment

It is necessary to provide storage for staples and for some supplies and small equipment. The space required will depend upon the amounts purchased and the frequency of buying. Under ordinary conditions it is not desirable to carry a large inventory, and the smart buyer keeps his stores small. The storeroom should be clean, well lighted, and well ventilated. Shelves for canned and other packaged goods should be of metal; these are adjustable and are readily available at low cost under ordinary conditions. If shelf space is not sufficient to take care of all case goods, wood racks at least 6 inches high should be built to carry them. Sack items such as flour and sugar should be stored on platforms 12 inches to 18 inches high. Dried items such as peas and beans are best kept in galvanized cans with well-fitted tops. They may be labeled by painting the name of the item on the can. If equipped with rollers or set on dollies, these can be handled easily.

Canned goods should be unpacked immediately upon arrival. A table for unpacking case goods and a file for keeping records should be provided, as should platform and table scales. It is desirable to have a sink in or near the storeroom for cleaning purposes.

Refrigeration

Good refrigeration is essential for the storage of perishable foods from the time of delivery until time of preparation for cooking and service. It is also necessary to preserve leftover foods for future use. Foods must be held at proper temperature in order to keep their quality and to protect the health of customers. The refrigerator is therefore one of the most important items in any food service.

The amount of refrigeration and whether or not both a walk-in and a reach-in box are required will depend on the space available, the frequency of delivery, the menu, and the use of frozen or frosted foods. Reach-in boxes are likely to be adequate for the small restaurant with a limited menu and located close to supply houses. A walk-in box, however, is a convenience when deliveries of perishables are made only two or three times a week or where the volume of business and the variety of the menu require liberal refrigerated storage.

Price is not the determining factor in buying a refrigerator; price must be related to specified performance. Quality depends upon insulation in the box and the adequacy of the cooling unit.

Unless food is to be used within a day or two after purchase, it is necessary to have storage at two or three different tempera-

tures, accomplished by individual compressors. The compartment for meat, fish, and poultry should be held at 32°F. Fruits, vegetables and dairy products are usually kept at 45° to 50°F. Bread may also be kept in this compartment in case of an oversupply. Frozen foods should be kept at a temperature not above 5°F.

An ice cream cabinet operated on its own compressor at a temperature of 5° to 8°F. is required in a restaurant serving frozen desserts. The cabinet may be owned by the restaurant or loaned by the distributor from whom the ice cream is purchased.

Cooking Equipment

All factors listed earlier in this chapter as determining the choice of equipment should be taken into consideration in choosing the items to be used for cooking; most important of these are the menu to be served and the types and cost of fuels available. Any suitable combination of ranges, separate ovens, fryers, kettles, and steamer may be selected, bearing in mind the caution concerning overpurchase at the beginning of a business.

Many cities have local ordinances outlining acceptable standards for commercial-cooking equipment and the restaurant operator should find out if the make of range he is buying will meet these standards.

Ranges are available in a variety of types. They should be of heavy-duty construction. Several manufacturers now make stainless-steel ranges. Tops may be open, solid or fry, or used in combination.

Ranges should be placed on a solid fireproof base, if the floor is not already such.

Ovens are a part of range units except those of the skeleton type. On bake ovens individual deck control is highly desirable since it permits various foods to be baked at different temperatures.

Separate broilers of the large stationary type are not required in the average small restaurant. A broiler-griddle combination is available as a part of many range sections. On the other hand in a restaurant specializing in steaks and chops the heavy-duty broiler is the main piece of cooking equipment.

A steamer is frequently used in a cafeteria when a large number of people come in at the same time, most of whom are likely to purchase a full meal. High-pressure steam is not required for all types. If vegetables are to be cooked in a steamer it is important that it be lined with a nonporous, noncorrosive material such as stainless steel. Baskets also should be of stainless steel.

Soups in quantities required in the small restaurant are gener-

ally made on top of the range, particularly if they are made from any of the prepared soup bases which are available.

Deep-fat fryers are needed in many restaurants, particularly those specializing in fried foods.

Labor-Saving Machines

A peeler is necessary where potatoes and other root vegetables are served frequently, the size should suit the use.

If space permits, the peeler should always be set high enough to empty onto the drainboard or into the vegetable sink. One of the most difficult pieces of equipment to clean, it should never be placed in a corner or close to a wall. A trap should always be installed for any machine larger than 8-pounds capacity.

A mixer is a "must" in food service equipment. It saves labor and improves the quality of many food items. One or more mixers may be needed, although one may suffice if baking is not done on the premises. Bench models are adequate for small restaurants. Many attachments are available, such as choppers, cutters and juice extractors.

A slicer is a great advantage as a labor saver, as a method of standardizing portions, and for improving the appearance of many foods.

Fabricated Equipment

Many items of equipment which in the past were always custom made are now "stock" items, mass produced in advance in certain standardized sizes. These are usually made of galvanized iron or stainless steel. The small restaurant operator might well investigate the possible use of these, making certain they are manufactured by a reputable firm. They are usually cheaper in price than built-to-order items.

However, space limitations or other considerations frequently make it advisable to have such items as sinks and cook tables built to the operator's specifications. In such instances each item should be planned from the standpoint of use. Durability and ease of maintenance must be considered in connection with first cost. A good item may cost more initially but be cheaper and more satisfactory in the long run. In temporary or short-lease installations, galvanized sinks are preferable, but for long-lease operations, stainless steel should be selected.

One sink may be used for several purposes where space is greatly limited.

Sinks for food and vegetable preparation should have two or three compartments and two drainboards. If space permits, each

compartment should be from 24 to 30 inches long with drainboards not less than 30 inches long. Gate valves should be used instead of plugs and a grease trap should be provided for each sink. Sinks should be seamless.

Particular attention should be given to the construction of the pot sink, which can become an eyesore in the kitchen. If possible it should contain three wash compartments in addition to a small scraping compartment, and should have an ample drainboard on each end. The first compartment is the soaking sink. The small scraping compartment, about 8 inches wide and 10 to 12 inches deep, has a removable perforated tray set on top of it, into which the loosened food materials are scraped. When the tray is filled with material, it may be removed and emptied into a garbage can. The next compartment is the wash sink and the last the rinse sink. If the water in the rinse sink can be kept to 180°F, towelling of the utensils is not necessary.

Tables should have either stainless-steel or wood tops, depending on the length of service expected from them. Wood tops should be of poplar 1½ to 2 inches thick, or of maple strips tightly fastened together.

Cook's tables should contain drawers mounted on slides with roller bearings, with compartments for seasoning and flour. A marine edge on the top is particularly desirable in helping to keep a clean work space. The under shelves should be in solid sections. Often a wooden cutting board is used as part of the top, and many tables are equipped with a top shelf. Although water should be available to the cook, it is not necessary to go to the expense of purchasing a sink for the table.

Certain items such as a slicer and the small mixer may be placed on small tables so that they may be used wherever needed.

Dishwashing Unit

There are two objectives of dishwashing: (1) cleaning, and (2) removal of harmful bacteria. If the cleaning is properly done, the majority of the bacteria will be removed.

While dishes may be washed either by machine or by hand it is highly preferable, even in a small restaurant, that this work be done by a machine. The appearance of the ware is better, a sanitary operation can be more readily controlled, labor costs are much lower, and breakage is usually less.

Dishwashing machines are made in a wide variety of models designed to fit the needs of practically every type of operation. The machines are either fully or semiautomatic. While in the past a large number of machines were made of enameled or galvanized

steel, most manufacturers now confine their entire production to machines made of stainless steel.

The size of the machine to be purchased is determined by the number of dishes put through the machine in a given period of time. These will vary with the menu; for an average restaurant six or seven per customer should be ample. Each machine should be equipped with thermometers in the wash tank and in the clear-water rinse line. Small booster heaters to the rinse line may be attached if necessary.

Sufficient room should be provided for the dishwashing area. Be sure that the soiled-dish table space is large enough to permit dishes to be scraped, sorted and placed in racks without crowding and dumping. Often a prewash sink is provided at the end of the soiled-dish table. Sometimes a pail or pan is placed on the table for scraping dishes. As the pan becomes filled it can be dumped into a large garbage container. In a number of instances an electric waste disposer is provided, in which case the pail or pan is not needed.

Clean-dish space should be adequate to permit a number of baskets of dishes to stand until dry. To avoid unnecessary handling the best arrangement is to have the dishes returned to the serving areas in the same baskets in which they are washed. Sufficient baskets and provision for storing the baskets should be provided. Dishes may be clean and have a low bacteria count on coming from the machine, but unless they are handled and stored properly, they soon become contaminated and undesirable for use.

Hot-Water Supply

It may be necessary to make special provision for hot water if it is not furnished from a central supply in the building, or if the building supply is inadequate. In this case, an additional storage tank and heater must be installed. The size of the tank will depend upon the total amount of water used per day and the amount needed during the period of maximum demand. It is more economical to keep the water in the storage tank at 140°F and use a booster heater to supply the 180°F water for the rinsing of dishes. The dishwasher manufacturer will give full information on the water requirements of the dishwasher you select.

Placement of Equipment

The main purpose in the placing of equipment is to group items into logical working units and to route supplies and traffic toward the service area with efficiency. It is therefore desirable to locate receiving and storage spaces near the receiving entrance.

If supplies are kept on another floor for storage, the elevator should be located in this area. The receiving area is likewise the proper area for garbage disposal and the cleaning of garbage cans. Where permissible, an incinerator is useful.

Next should come the preparation areas for vegetables and meat. This area should contain the sink, tables, peeler and grinder, should be located near the refrigerator, and readily accessible to the storeroom.

Following this should be the cooking area. The cooking units may, if desired, include the bakeshop as well as general food preparation. If a separate bakeshop is set up it may be located nearer the serving area.

The next area, which should be accessible from the preparation area, is for the preparation of salads, fruits, and fruit desserts. Sandwich making, if not done in the serving area, can be included in this area.

The last area should be for the preparation of beverages; pouring cream, fruit, and vegetable juices; and making toast and waffles.

Sinks should be located near the persons using them. The pot sink should be placed so that it can be used for washing cooking and baking utensils. If a salad sink is not used employees at the salad unit will have to use the sink in the vegetable and meat preparation unit.

It is important that the dishwashing unit be located so that soiled dishes may be routed to the soiled-dish table with the least crossing of incoming and outgoing traffic. Similarly, clean dishes should be returned to the serving centers without crossing the paths of counter workers or waitresses.

The dishwashing area should be located so that it does not interfere with other kitchen activities, and where the noise of dishwashing will not be noticeable in the dining room.

SMALL EQUIPMENT

Dinnerware

While vitrified china predominates in larger restaurants, many small restaurants use plastic dinnerware.

Vitrified china should be of institutional type, medium weight. Some restaurant operators select the rolled edge, but others prefer the straight edge, which they believe improves the appearance of the ware. Many attractive designs are available which fit into the decorative plan of the dining room; any pattern selected should be "open stock" so that replacement of the pattern can be purchased at any time.

The number of items selected should be limited to six or seven so that inventories may be kept at a minimum, and one item should be used for several purposes. The variety and sizes of dishes are determined by the menu and type of service. Eight-inch plates are suitable for most services, though a 9-inch plate is sometimes used for dinner in service dining rooms. A 6½-inch plate is now frequently used for bread and butter as well as for salads and desserts.

A sauce dish to hold 4 ounces is satisfactory for vegetables, and may also be used for many types of desserts. Soup bowls may be either 6- or 8-ounce size, depending on the size of the portion served. This bowl may also be used for cereals and for grape-fruit. Six-ounce cups are usually used for tea and coffee.

Paper containers can be used for many purposes.

Plastic and stainless-steel mess trays are particularly adapted for use in cafeterias and industrial restaurants.

Glass, either plain or in color, adds to the attractiveness of food service and has many practical uses.

Tumblers may be either pressed or blown. A 4- to 6-ounce glass is used for fruit and vegetable dishes, an 8-ounce tumbler for both water and milk, and a 10- to 12-ounce tumbler for iced beverages.

Cooking china is available in attractive colors, and such food items as meat-pie dishes, custards and beans are usually served direct in this ware.

It is highly advisable for the operator of a small restaurant to purchase sufficient china and glassware to serve all customers at a meal without the need for dishwashing during the meal service. This makes for smoother operation, less breakage and a better organization of employees' time. Quantities which allow for minimum breakage and for annual replacement are as follows:

Plates, large—2½ to 3 times the number of seats.

Plates, small—3 to 4 times the number of seats.

Bowls—2½ to 3 times the number of seats.

Sauce dishes—3 to 4 times the number of seats.

Cups—3 to 4 times the number of seats.

Saucers—2½ to 3 times the number of seats.

Tableware

Tableware should always be of hotel type and weight. It may be plated ware, in which silver is deposited on a nickel-silver base, or stainless-steel ware. Generally, plated ware is selected; this should be a good quality plate on a heavy base. Plated ware should have constant care and polishing if it is to be kept in good condi-

tion. Some operators purchase stainless-steel ware, because of its ease of cleaning and its durability.

Hollowware can be plated or stainless steel.

Flatware requires careful handling, examination of garbage to cut down careless loss, and frequent inventories to keep stocks in adequate supply. With these precautions, quantities for purchase are as follows:

Knives—2 to 3 times the number of seats.

Forks—4 times the number of seats.

Soup spoons—1½ to 2 times the number of seats.

Tea spoons—4 times the number of seats.

Cooking Utensils

Cooking utensils should be heavy-duty and can be either aluminum, stainless steel, or copper-clad stainless steel. Those used for cooking on the top of the range should have flat bottoms which set squarely on the conducting surface. Steam-table containers are generally made of stainless steel.

Cooking utensils, which come in a variety of sizes and shapes designed to fit practically every need, should be selected for multiple usage wherever possible.

Records of Equipment

It is essential to keep a complete record of all equipment. A separate card is needed for each item of large equipment. Tableware, dinnerware and utensils may be grouped on a card for each class. Typical forms are shown on page 48.

ILLUSTRATIONS OF SMALL LAYOUTS

Layouts of four types of small restaurants follow. These are not intended as models but rather as typical arrangements which might be used in small premises. The owner will have to adapt these suggestions to his own specific site. In laying out equipment, it would be helpful to have cardboard scale models of the equipment which can be moved around until the best arrangement is found.

Main items of equipment are labeled on the diagrams; the complete lists follow.

Layout I—Lunchroom Seating 20

Explanatory notes. Many small premises have frontages of approximately 20 feet. Such properties may be adapted for lunchroom use if the menu is limited and equipment selected and placed to make the most of every available inch of space. In this plan,

Equipment Record Card

(1) For Large Equipment

Item	Date of Purchase
	Model
Trade Name	Serial No. Price
Manufacturer	Cost of Installation
Operation	Guarantee
Current Voltage	Period of Free Service
Special Description or Specification:	
.....	
.....	
Dealer	Salesman
Address	Telephone No.

Repairs and Replacements (back of card)

Date	Nature	Time Required	By Whom	Cost
.....				
.....				
.....				

(2) For Small Equipment (Regular inventory form)

Item	Description
------------	-------------------

Date	Firm	Received	Unit Cost	Total Cost	Issued	Value	Inventory	Value	Loss	Value

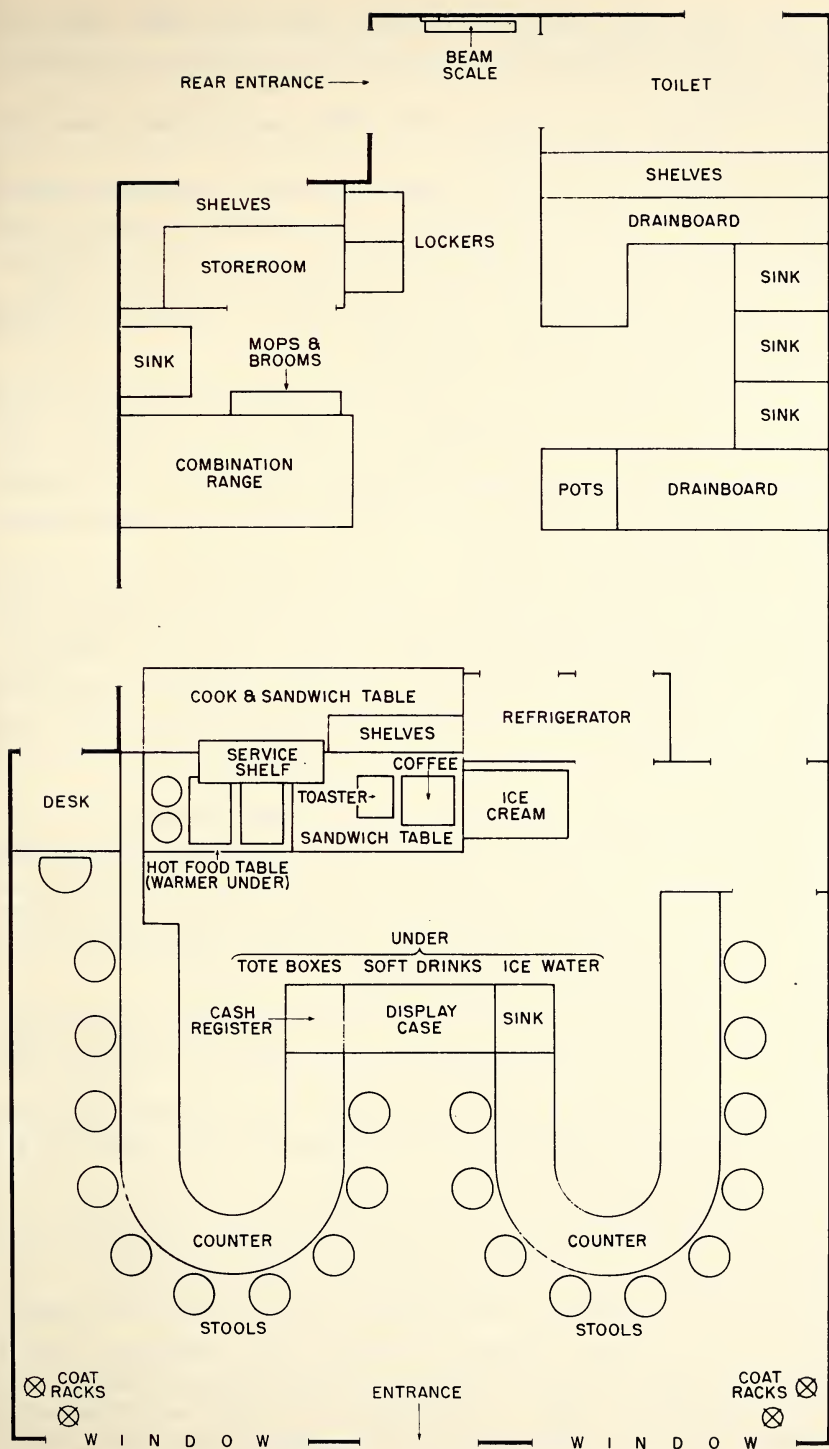
involving about 600 square feet of space, careful supervision will be required to make it profitable; yet many restaurant operators get their start in a venture of this size.

This type of restaurant can be operated by three well-trained persons on an 8-hour basis if work is properly scheduled and if the menu is restricted to a limited number of prepared items. When two persons are on duty at the counter, the cook handles all the work in the kitchen, including sandwich making.

Cooking equipment in the kitchen is limited to the combination restaurant range which includes solid and fry tops and two ovens.

One three-compartment sink is provided for food preparation and dishwashing. Drainboards adjoining the utility sink may be used for preparation when dishwashing is not in progress. A small table-type dishwasher would be an excellent addition if funds permit. A small sink should be provided in or near the cook's table, if possible.

The pot rack is portable, with 3- or 4-shelf capacity, and provided with substantial hooks for securing to adjacent dish table when desired.



Pans and extra dishes are stored under the cook's table. If space permits, additional storage cabinets should be provided in the kitchen.

Two garbage cans mounted on dollies are placed under the drainboard and cook's table.

A wire-screen partition encloses space for stores and permits air circulation and good lighting. An insulated back panel protects the back of the range and assists in controlling radiation of heat. Cleaning sink and tools are located back of this wall.

A container for paper towels, soap, and a wastepaper basket should be provided at the hand sink.

The shelf forming part of the service hatch over the hot-food table permits convenient passage of food from kitchen to the lunchroom proper. The refrigerator, with access from both kitchen and lunchroom, offers the same convenience. It is assumed that beverage milk will be stored in this refrigerator for use from the counter side.

The section of the counter connecting the service bays is 40 inches high, whereas the rest of the counter is the regular table height of approximately 29 inches. Under the center section is located a tier of two tote boxes, a portable soft-drink chest, and a two-compartment sink. A junior-size chest is shown here, but there is space for a longer chest if additional cold storage is required.

The sink has two compartments, each with a separate waste outlet connected to one lead. One of the compartments is insulated for cracked ice storage. If desired, a block tin coil can be fitted into the bottom of this compartment to cool drinking water available at the adjacent compartment. For the protection of the coil a false bottom must be provided.

Hot- and cold-water faucets are located over the compartment which functions as a sink. This sink also takes care of the coffee maker.

Dishes are stored under the hot-food table and the adjacent work table and on stainless-steel wall shelves over the work tables and ice cream cabinet.

In some premises it may be possible to locate the toilet and locker facilities and storage space in the basement, thereby releasing valuable space in the kitchen for other purposes.

Equipment. Contains a low-priced lunch counter with stainless-steel tote boxes, 20 stools, a rebuilt cash register, a menu board and water station, a display case and counter, and an ice-cooled soft-drink chest. It provides for a hot-food table with stainless-steel top and inserts and insulated heat pan, a back-counter, a vacuum-type coffee maker, and a 4-slice automatic

toaster. The ice cream cabinet and compressor would probably be loaned by the ice cream manufacturer, but the working refrigerator and compressor would have to be purchased. There is also a moderately priced cook's table, a 10-quart bench-model mixer with chopper attachment, and a hand-operated slicer. A dishwashing machine is not included, but provision is made for sinks, dish table and drainboard, a combination range and hood, as well as a shelf. The layout includes metal shelving for stores, a beam scale, a supply cabinet and a portable mop rack, both slop sinks and hand sinks. A wire partition is provided for, as is a first-aid cabinet, 3 garbage cans and dollies, a manager's desk and chair, and a rebuilt portable typewriter.

With careful buying, this equipment, including the cost of small items, china, glass and silver, but excluding excise and sales taxes, installation, lighting and ventilating, could be purchased for approximately \$4,925 in 1956, or about \$245 a seat. Of this total cost about 55 percent would be spent for kitchen items, about $33\frac{1}{3}$ percent for service items, such as counter, stools, etc., about $9\frac{1}{2}$ percent for small utensils, china, glass and silver, and the remainder for such items as manager's desk and chair, and portable typewriter.

Electrical outlets which will be needed:

Lunchroom

- 3 ceiling outlets
- 3 wall plugs
- 1 two-way switch

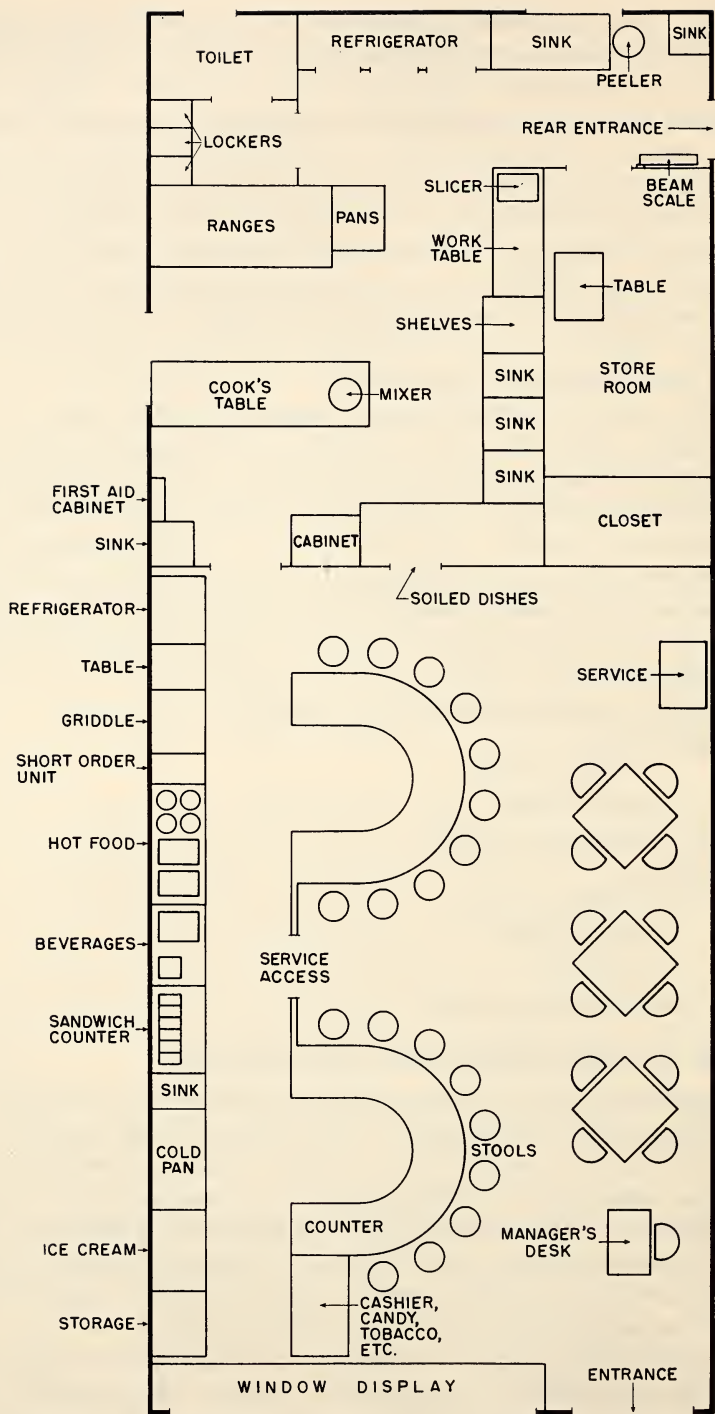
Kitchen

- 4 ceiling outlets
- 2 hood lights
- 4 switches
- 2 electrical outlets

Layout II—Lunch Counter and Table Service

Explanatory notes. This combination lunch and service operation is one type of arrangement for a typical small store 20 x 52 feet. It may be operated on an 8-hour basis by four full-time persons, including a working manager, and one part-time worker. During meal periods one employee is continuing food preparation in the kitchen, two are at the counter and one at the table station. At this time the part-time worker may be used for dishwashing, and after main service hours for porter work.

Vegetable preparation is kept in the rear of the kitchen to facilitate the removal of preparation waste. The vegetable sink is located conveniently to the delivery entrance. The drainboard of the vegetable sink is large enough to be used as a worktable.



Cleaned vegetables may be placed in the refrigerator. The refrigerator is located in the coolest area of the kitchen, yet is convenient for delivery of perishables and for use by the cook.

The utility sink is an all-purpose unit for an installation of this capacity at minimum cost. The worktable adjoining the utility sink is accessible to both vegetable and utility sinks and to the refrigerator. A small dishwasher would be an asset if fast service is required.

Two sections of range are provided but any desired combination of cooking equipment may be substituted. These items are supplemented by the short-order stand behind the counter which may serve as the only cooking equipment required for certain periods of the day. Short orders may be prepared in the kitchen if it is desired to reduce equipment expense by the cost of this fixture and the canopy overhead.

Pots and pans are stored on the portable rack and under the work and cook's tables.

The storage cabinet immediately inside the kitchen door may be used as desired for supplies required in the lunchroom. The kitchen storeroom is liberal in proportion to kitchen capacity. A wire-screen partition, less expensive than a structural partition, permits good lighting and ventilation.

The counter included in this sketch is more expensive than that presented in Exhibit I. For proportion and construction of counter see detail drawing. This type provides ample waitress setup space and additional storage in the rear. The attractive stainless-steel facing is easily cleaned. This back-counter equipment, which includes refrigeration, short-order unit, hot table, sandwich table, coffee-making equipment, and cold pan, is provided for the service of complete meals. If a specialty menu is featured, the equipment should be modified, possibly reduced, accordingly.

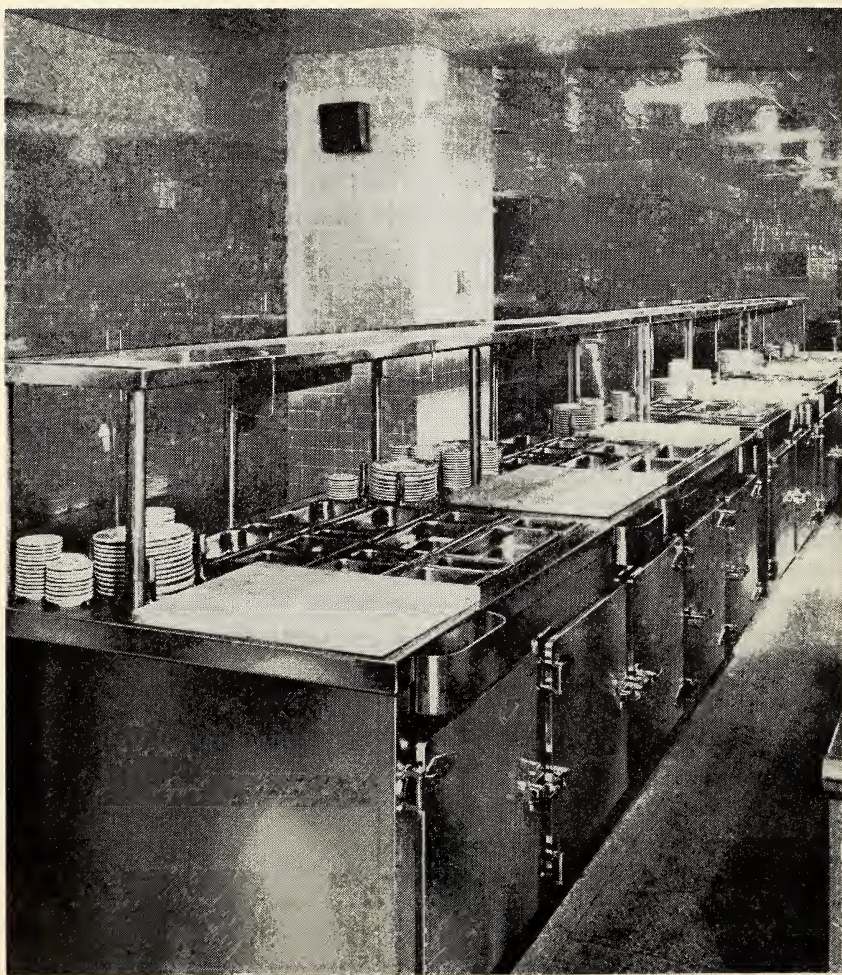
The cold pan is equipped with a block tin coil servicing the adjacent water station. The coil is cooled by the ice in the cold pan. If funds permit, a small mechanical-cooling unit may be provided for pan and ice water. The compressor may be placed under the cold pan or in the basement, if convenient. If this type of cooling is used, additional refrigerated space may be provided under the cold pan. The sink at the water station also services the coffee maker.

The griddle is placed near the service refrigerator for convenience to food supplies. The hot-food table, under which are stored the dishes for hot-food service, is located near the kitchen for easy accessibility. Cups for coffee are stored in a tier of wire baskets placed on simple angle slides under the coffee-maker table.

Dish storage is provided on the service shelf under the counter top, in auxiliary dish storage at the end of the back counter, and in the setup stand.

For off-hour and night service this setup can be operated without using the kitchen.

Equipment. In layout II there is a lunch counter, 19 stools, 3 tables and 12 chairs, a candy and cigar stand and a service stand, a rebuilt cash register and menu-duplicating equipment; a storage cabinet, provision for auxiliary storage, metal shelving for storage, and a shelf. The ice cream cabinet and compressor again would probably be borrowed from the ice cream distributor. A combination water cooler, cold pan and display case (including pie display case) and sink is provided, as is the back-counter refriger-



Stainless steel salad and sandwich unit.

erator, and the kitchen refrigerator and compressor. There is a sandwich unit and bread table, a 4-slice automatic toaster and a vacuum-type coffee maker. The layout contemplates the use of a hot-food table, a short-order unit with a canopy or hood over the griddle, a 2-section range with canopy over a cook's table, worktable, hand sink, vegetable sink, slop sink and pot sink. A 10-12 quart mixer, bench model, with meat chopper, is shown, together with a hand-operated slicer, and an 8-pound bench-model peeler, a beam scale, and 3 garbage cans with dollies.

In order to hold costs down, a dishwashing machine is not specified, although one should be purchased if funds permit. In its place are triple compartment sinks with drainboards. A wire-screen partition is also furnished.

A first aid cabinet, a manager's desk and chair and a rebuilt portable typewriter conclude the items.

With careful buying, this equipment, including the cost of small items, china, glass and silver, but excluding excise and sales taxes, installation, lighting and ventilating, could be purchased for approximately \$8,085 in 1956, or about \$260 a seat. The cost of kitchen items would be about 57 percent of the total, service items, such as counter, stools, tables, chairs, etc., about 33½ percent. Approximately 8 percent would be needed for small utensils, china, glass and silver, and the remainder for manager's desk and chair and typewriter.

Electrical outlets which will be needed:

Lunchroom

- 8 ceiling outlets
- 1 neon-sign outlet
- 1 stairway outlet
- 6 wall plugs
- 4 switches

Kitchen

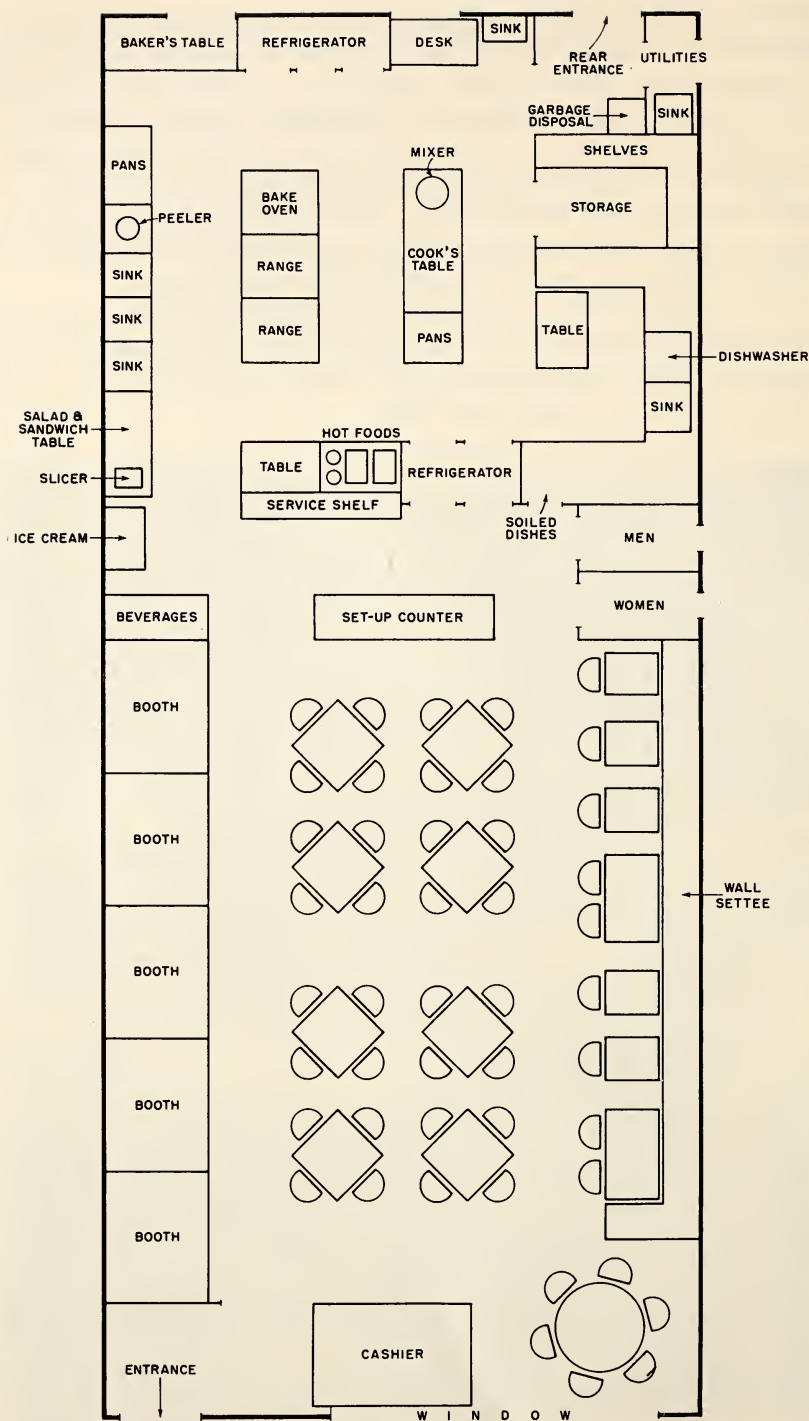
- 6 ceiling lights
- 2 hood lights
- 5 switches

In addition to the above expense, adequate working capital is essential.

Layout III—Service Restaurant

Explanatory notes. Small premises may be adapted to service restaurant use. In Layout III the space utilized is approximately 1,600 square feet.

The number of persons required to operate this restaurant for an 8-hour period, assuming a typical menu for this type of restaurant, will probably be four or five in addition to the working



manager, plus part-time waitresses and cashier. Some waitresses may be employed full time and used for salad and sandwich work between meals.

Provision is made for a bake oven and baker's table, assuming that baked goods will be featured and that the volume of sales will justify this outlay. To reduce cost, galvanized cans on dollies may be substituted for bins under the baker's table.

Two sections of range are provided but any combination of cooking equipment adapted to the menu may be substituted. For example, if fried foods are featured, a deep-fat fryer is essential and one range may be eliminated, or, a portable fryer may be added.

In view of the location of the bake oven it is necessary to provide an insulated panel for the back of the ranges only. This, together with the use of wire-screen partition around stoves, leaves the general kitchen area unbroken by walls which would retard the circulation of air and interfere with good lighting.

The sink for preparation and for potwashing is accessible to cook, baker, and salad girl. The peeler is placed under a hinged drainboard of this vegetable sink because of limitations of space. If space is available, the peeler should be placed on a pedestal at the end of the drainboard and at such height as will permit the machine to empty into the sink or on the board.

The kitchen refrigerator serves both cook and baker, and the mixer on the cook's table is used by both.

A dishwashing machine is essential in a unit of this size. A rinse arm or hose with spray head provides for rinsing dishes before they enter the machine. The catch trough has a removable perforated basket with flat handles, flush with the top, to permit racks to slide over. Water and food particles from the soiled-dish table flow into the trough; this prevents a pollution of the wash water. The table may be extended along the back of the machine so as to form a rack return.

The portable table adjoining the clean-dish table may be used for bulk transportation in the kitchen and to carry clean dishes to the urn stand and other serving units in the dining rooms.

A garbage-disposal machine which takes all types of wet garbage, reducing it to a pulp which is flushed into the sewer, is suggested. The machine reduces the fly hazard and eliminates the problem of garbage storage. Garbage cans on dollies will of course be required at accumulating points such as the soiled-dish table and the pot and vegetable sink.

A container for paper towels, soap and a wastebasket must be provided at the hand sink.

Dishes which must be heated are stored in the warmer under



View in kitchen, showing stainless steel cook's and work tables.

the hot table in the kitchen, which may open two ways, if desired. Salad and dessert dishes for items served in the kitchen are stored on shelves under the sandwich table and the table adjoining the hot tables. A cabinet for additional dish storage is desirable if space permits. Other service dishes are stored in the dining room in the cabinet under the service shelf, on shelves under the pie case and urn, and setup table. All shelves are 18 inches deep only, with solid backs and, if possible, sliding doors.

It is unnecessary for waitresses to enter the kitchen during the meal service. The service area provides for direct service of all hot and cold foods, including beverages. Hot foods are served from the hot table in the kitchen to the service shelf. The dish window gives easy access to the soiled-dish table.

Ready-to-serve items such as juices, salads, butter, milk, and cold desserts may be placed from the kitchen side of the refrigerator and removed from the service side.

An effect of separation from the dining room is afforded by paneled screens. These do not need to be higher than 5½ feet.

Any desired arrangements for seating may be used. A combination of booths and tables is sometimes preferred, but many operators select tables only, varying the types and sizes.

Provisions must be made for toilet facilities for patrons and for toilet, locker, and restroom space for employees. Local health regulations govern many of these provisions. If space permits, these may be located on the same floor as the restaurant; suitable

basement areas are frequently available. In this plan these facilities are located in the basement. Extra storage space may also be provided in the basement.

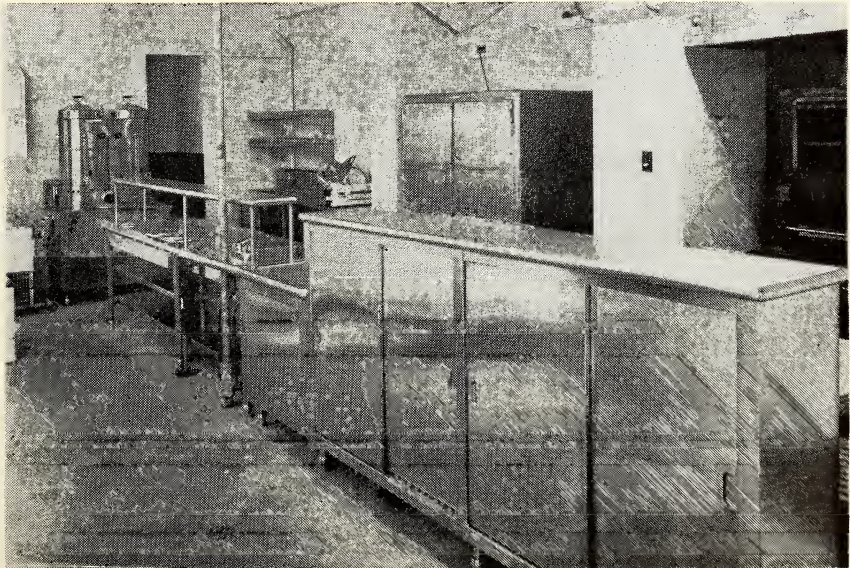
Equipment. In the service area, in this restaurant equipped to seat 77, the designer has arranged for eight 34-inch square tables (if space were available 36-inch square tables would be preferable), one 48-inch round table, two 30 x 48 inch tables, and five 24 by 30 inch tables; booths, five 30 x 54 inch booth tables, a wall settee, and 47 chairs; a cashier and cigar stand, a rebuilt cash register, a setup counter for silver and linen storage; a beverages and pies unit, an ice cream cabinet and compressor (loaned by ice-cream manufacturer), ice water unit and compressor and a service refrigerator and compressor.

In the kitchen area provision is made for the hot-food table with warmer, 2 ranges with shelf and salamander (or 1 range and 1 fryer), bake ovens, hoods for ranges and ovens, and the kitchen refrigerator and compressor.

The layout provides for a salad and sandwich preparation table, a baker's table and shelf, a cook's table, a worktable and a portable table, pot and vegetable sinks and drainboards, a hand sink, 2 slop sinks, and 2 portable pan racks.

These pieces of equipment will be needed: a 4-slice automatic toaster with shelf, a hand-operated slicer, a vegetable peeler with trap, a deep-fat fryer, and a 14-20 quart bench-model mixer.

A dishwasher with soiled and clean dish tables and sinks will



View in kitchen showing stainless steel cook's table and plate warmer.

be needed, as will a garbage disposer and hopper, a beam scale, 4 garbage cans with dollies, a wire-screen partition, a kitchen control desk and chair, and metal shelving for stores.

A portable typewriter, menu duplicating equipment, file and a first-aid cabinet conclude the items necessary for this installation.

With careful buying this equipment, including the cost of small items, china, glass and silver, but excluding excise and sales taxes, installation, lighting and ventilating, could be purchased for approximately \$12,170 in 1956, or \$158 per seat. Of this total cost, about 63 percent would be spent for kitchen items, about 24 percent for service items, about 11½ percent for small utensils, china, glass and silver, and the remainder for such items as typewriter, file, menu duplicating equipment, and a first-aid cabinet.

Electrical outlets which will be needed:

Dining Room

120 feet of wall positional indirect lighting trough and fluorescent tubes

1 wall plug

2 switches

Serving Area

3 ceiling outlets

2 switches

3 wall plugs

Kitchen

10 ceiling outlets

4 hood lights

10 wall plugs

6 switches

In addition to the above, adequate working capital is essential.

Layout IV—Cafeteria

Explanatory notes. Large installations permit great flexibility. Space is usually selected with specific plans in mind and operators of experience have certain features which they have found to be especially desirable and which they include in any installation. Experienced kitchen engineers adapt successful ideas or design new methods of meeting each specific situation.

Two-floor operation for preparation and service is frequently used but electric dumbwaiters and the double labor force required by them at loading and unloading points make the operating costs prohibitive in some cases. Lockers, restrooms and toilets may be located in basement areas, however. A place for washing and storing garbage cans, dry storage, and, if necessary, walk-in refrigeration and vegetable preparation may also be located in the

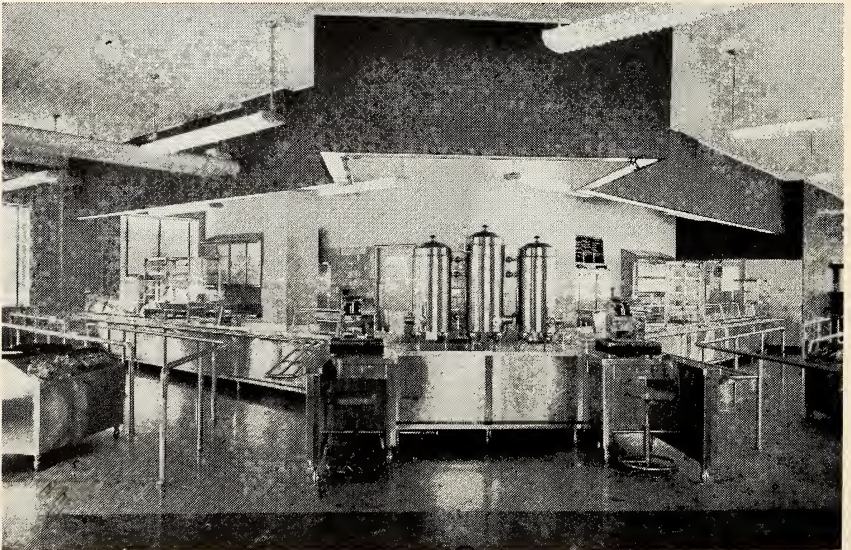
basement, but an elevator or dumbwaiters of adequate size have to be provided, for carrying foods to the kitchen.

Because of the infinite variety of large layouts only one moderate-sized cafeteria is illustrated. This plan is of the simplest type and may serve to suggest necessary equipment items and possible relationships in location. This cafeteria seats approximately 150. A basement location is selected because of low rental and probable patronage from the offices in the building above.

The single entrance for employees and for the delivery of food is under observation of the supervisor at the control desk. Incoming supplies are checked, weighed on the platform scale, and routed to storeroom or refrigerators or preparation area. The portable table may be used for receiving items to be carried to the dry stores. The same truck is used for carrying trays, silver and some dishes from the clean-dish table to the serving counter. A wire-screen partition is used in front of the storeroom to permit good ventilation and to keep construction cost at a minimum.

A dishwashing unit is immediately accessible to the busboys or busgirls as they enter the kitchen from the dining room. Two single-basket machines are suggested—one for glasses and another for dishes and silver. It is possible to use one larger machine but the two machines provide greater flexibility in service. One machine only may be operated for all purposes during a light meal such as breakfast.

Clean glasses are easily returned from the clean-glass table to



Cafeteria, showing two stainless steel cafeteria counters.

the shelves at the ice-water station which open both into the dining room and the dish-washing section. An ice-water-holding tank with agitator is located under the section of the dish table back of the two-way shelves for glasses.

Clean cups and saucers and clean dishes for salads and desserts may be returned to the cafeteria counter through the pass window from the clean-dish table.

Two walk-in refrigerators and one 12-foot reach-in refrigerator are suggested for kitchen use, this space being modified according to the requirements of the menu and to delivery service. Additional cabinets for frozen foods may be needed. The reach-in refrigerator, which may be operated on the same compressor as the larger walk-in, is accessible to the employees preparing vegetables and salads and to the cook. If the hours of the baker are such that most of his work is done before the heavy preparation begins in the kitchen, he may use this same refrigerator. If not, it is desirable to eliminate the pass window and to place a refrigerator for the baker at that point. The two-way refrigerator back of the salad and dessert counter permits filling from the worktables in the kitchen and removal from the service side.

Kitchen equipment suggested is adequate for preparation of food for a turnover of four or five times the seating capacity per meal. If a larger turnover is anticipated, additional cooking equipment should be added. Any combination of cooking equipment which is required by the menu may be substituted for the ranges, broiler, steam-jacketed kettle and oven as placed here. One bake oven, to be used by both baker and cook, assumes that the baker's heavy work will be scheduled for early hours. A portable fryer is suggested, which can be placed on the cook's table. If space permits, this item may be located in the range unit.

A garbage-disposal machine is suggested in the vegetable preparation table. The cover may be used as a part of the table space except when removed for periodic operation of the machine.

The large mixer is so placed that it may be used by both cook and baker.

Shelves under tables provide additional storage space, as does the wall shelving which adjoins the refrigerator between kitchen and dining room.

The portable racks for clean pots and pans may be filled at the scullery and returned to position. The scullery is accessible to cooks and baker, and for pans returned from the counter. A 3-compartment sink should be provided, if space is available.

Space is suggested for an employees' dining room and the usual requirements of a hand sink, a drinking fountain, and first-aid cabinet are provided also. The utility room for a slop sink and

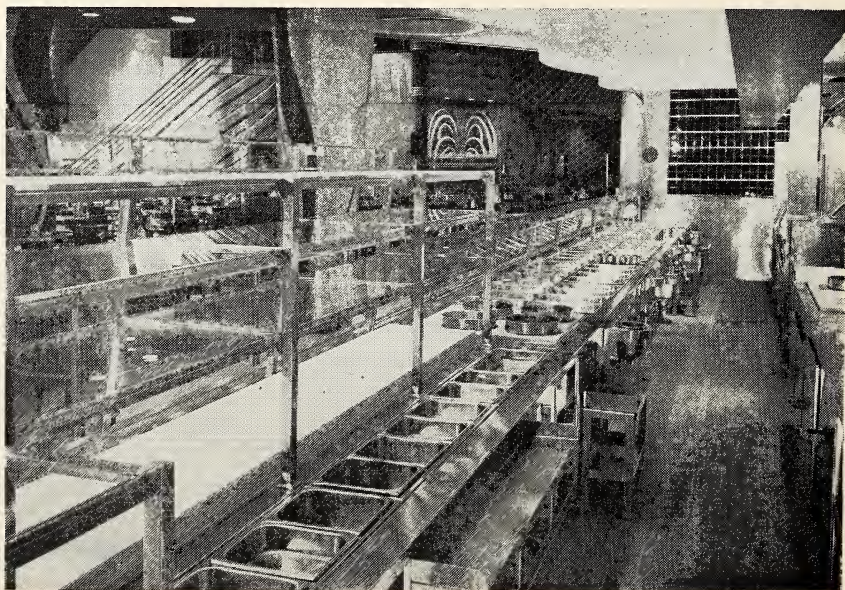
cleaning tools may also be used for washing of garbage cans if no other area is available, since the use of the disposal machine limits the amount and type of garbage.

In the dining room the straight-line counter illustrated here is the least expensive type. Lines move rapidly along such counters if attendants are skilled and fast. If the menu does not include too many choices for prompt selection and if the counter, including sandwich section, is kept well supplied at all times, one serving counter can handle approximately as many people as the seating capacity will accommodate. In larger cafeterias multiple single counters would probably be used in parallel or hollow-square arrangements.

Urns are placed at right angles to the service counter for facility in service and for the better appearance of the counter. They are so set as to eliminate waste space at the front and the cutout enables the server to pass the beverage to the customer easily. An insulated sink for the storage of cracked ice for iced beverages adjoins one of the urns. This is kept covered for work space when not in use.

Extra refrigerators may be provided under the sandwich table in the back bar if desired. There is liberal work and service space at the back bar.

Extra dish storage is provided in the cabinet back of the trays and silver. This cabinet may be extended along the end wall if necessary. Dishes are also held in the warmer under the hot



Work side of cafeteria counter, steam table section in foreground.

table and on shelves under the entire counter. These shelves should be no deeper than 18 inches and the bottom shelf should be at least 10 inches from the floor.

Facilities for guests are indicated at the entrance from the arcade. A provision for checking coats is indicated in case space is available and the management desires to provide this service. Otherwise, racks must be placed at suitable intervals along the cafeteria wall. The location of the counter in relation to the entrance provides space for waiting customers; the location of the cashier's desk controls the exit; the manager's desk is located in this same area since the manager sometimes takes cash.

Square tables are indicated to show possible seating arrangements; any desired combination of shapes and sizes of tables may, of course, be substituted.

Separate stations for checking and payment are suggested here since this method speeds the passage through the line. A checking machine is indicated but the cashier may merely punch a check if that method is preferred. Many cafeterias combine checking and payment, using a cash register at the end of the line. In the hollow-square type of service, the cashier with cash register is located at the exit from the counters to the cafeteria.

Equipment. This layout, designed to seat 156, includes a cafeteria counter, including a right-angle projection forming beverage stand, triple-bar slide rail, four-compartment silver bin, a changeable-panel hot-food table, double display shelves and cold plate; 39 tables and 160 chairs, a cashier's and cigar stand (many operators prefer to use automatic cigarette vending machines), a change maker, and a checking machine.

A guard rail is provided, as is an ice-water station with compressor, a portable checker stand and an auxiliary silver and linen stand.

Hat racks, a water cooler and compressor, three menu boards, two dish trucks for dining room, urn batteries, a cream dispenser, a combination ice bin and sink are specified for the service area, as are an ice-cream cabinet and compressor and a service refrigerator and compressor.

In the kitchen provision is made for three ranges (including two-burner hot plate extension, back shelf over two sections and a salamander), a two-deck bake oven, hoods over the ranges and ovens, a short-order stand with canopy over, and a deep-fat fryer.

Tables and sinks included are: cook's table, two work tables, a vegetable table and sink, baker's table and shelf, an extra table, a portable table, and a sandwich table; a hand sink with water bubbler, a pot sink and a slop sink.

There is a steam kettle (or steamer), a portable dessert truck, a boston pan rack and an auxiliary rack; a large combination storage refrigerator with two compressors.

Labor-saving devices include a semiautomatic slicer, a 15- to 20-quart bench-model mixer, an electric counter-model food cutter, a pedestal-type vegetable peeler with trap, and a large mixer.

Provision is made for two dishwashers with soiled and clean dish tables complete with drainage troughs, garbage chute and disposer; 8 carbage cans with dollies, an extra garbage disposer, and broom racks.

Included is a meat block and a portable pan rack with four shelves, portable scale, a tier of shelves and metal storage shelving; and a kitchen control desk and stool, and wire-screen partition.

A manager's desk and chair, a portable typewriter, a file case and a first-aid cabinet are the remaining necessary items.

With careful buying this equipment, including the cost of small items, china, glass and silver, but excluding excise and sales taxes, installation, lighting and ventilating could be purchased for approximately \$33,650 in 1956, or \$215 per seat. Of this total, about 57 percent would be needed for kitchen equipment, 35 percent for service equipment, 7½ percent for small utensils, china, glass and silver, and the remainder for manager's desk and chair, typewriter, file case and first-aid cabinet.

In an installation of this type, the landlord would probably provide the ventilation as part of the ventilating system of the building.

The tenant will need to supply lighting fixtures in approximately the following number:

Dining room and entrance facilities	20
Cafeteria service area	4
Kitchen area	20

In addition to the above, adequate working capital is essential.

General Comment

It should be borne in mind that the layouts presented here are all for small restaurants (no cafeteria plan should be considered seating fewer than the number shown on page 61), and are based on minimum requirements. There are many labor-saving devices on the market which should be considered if funds permit and if the expected sales volume and savings in labor costs warrant.

Small kitchen equipment, minimum requirements for each layout

Item	Layout I 20-seat lunchroom	Layout II 31-seat lunchroom	Layout III 77-seat restaurant	Layout IV 156-seat cafeteria
Beaters:				
French whips, 16-inch.....	1	1	1	2
Rotary, hotel weight.....	1	1	1	1
Boilers, double:				
Aluminum, hotel weight, 2-quart.....	1	1	1	1
Aluminum, hotel weight, 4-quart.....	1	1	1	1
Aluminum, hotel weight, 17-quart.....	--	--	1	1
Bowls:				
Chopping.....	--	--	1	1
Mixing, 6-inch.....	1	1	1	2
Mixing, 9-inch.....	1	1	1	2
Mixing, 12-inch.....	1	1	2	2
Brushes:				
Brooms, janitor's weight.....	1	1	1	2
Floor, bristle, 12-inch.....	1	1	1	2
Pastry.....	1	1	2	2
Radiator.....	1	1	1	1
Scrub, deck.....	1	1	1	2
Scrub, gong.....	2	2	4	4
Vegetable.....	2	2	4	6
Butter cutter.....	1	1	1	1
Can opener.....	1	1	1	1
Canisters:				
25-pound.....	--	--	2	2
50-pound.....	--	--	2	2
Colanders:				
12-inch.....	1	1	1	2
Cups, measuring:				
½-pint.....	1	1	1	2
1-quart.....	1	1	1	1
2-quart.....	--	--	1	1
4-quart.....	1	1	1	1
Cutters, biscuit.....	1	1	1	2
Dippers:				
Ice cream, No. 16.....	--	--	4	8
Ice cream, No. 20.....	1	1	4	4
Ice cream, No. 24.....	1	1	2	2
Extractor, juice, hand-operated.....	1	1	1	1
Forks:				
Cook's.....	1	1	2	2
Serving.....	3	3	6	6
Jars, storage:				
2-quart.....	2	2	2	4
4-quart.....	1	1	2	4
6-quart.....	--	1	1	2
Kettles:				
Preserving, 14-quart.....	--	--	1	1
Deep fat with basket.....	1	1	1	--

**Small kitchen equipment, minimum requirements
for each layout—continued**

Item	Layout I 20-seat lunchroom	Layout II 31-seat lunchroom	Layout III 77-seat restaurant	Layout IV 156-seat cafeteria
Knife sharpener-----	1	1	1	1
Knives:				
Apple corer and parer-----	1	1	1	2
Butcher, 6-inch blade-----	1	1	4	6
Carving-----	1	1	1	2
French, cook, 7-inch blade-----	1	1	2	2
Paring-----	2	2	4	6
Grapefruit-----	1	1	2	2
Spatula—				
6-inch blade-----	1	1	1	1
8-inch blade-----	1	1	1	2
Serving, wide blade-----	1	2	2	4
Ladles:				
Gravy, 2¼-inch-----	2	2	4	4
Soup, 4½-inch-----	1	1	2	2
Pail, water, 10- to 12-quart, stainless steel-----	1	1	1	1
Pans:				
Baking, 14 by 9½ by 2¼ inches-----	2	2	2	4
Baking, 18½ by 12½ by 2 inches-----	1	1	4	8
Baking sheets, 14 x 20 inches-----	1	1	2	4
Cake tins-----	---	---	12	18
Drip, 18 by 11½ by 2½ inches-----	1	1	1	2
Dish—				
8-quart-----	1	1	---	---
10-quart-----	---	---	1	1
12-quart-----	---	---	1	1
Dust, with handle-----	1	1	2	2
Muffin-----	2	2	8	12
Pie-----	---	---	12	18
Roasting-----	---	---	2	2
Sauce—				
1½-quart-----	2	2	1	2
4-quart-----	1	1	2	2
6-quart-----	1	1	1	1
8-quart-----	---	1	1	1
Pitchers, stainless steel, 4-quart-----	1	1	2	3
Pots, stock, aluminum, hotel weight:				
12-quart-----	1	1	2	4
24-quart-----	---	---	2	4
Spoons:				
Basting, stainless steel, 13-inch-----	1	1	1	2
Measuring, sets-----	1	1	1	2
Mixing-----	2	2	4	6
Serving—				
Solid, stainless steel-----	2	2	4	6
Perforated, stainless steel-----	2	2	4	6
Scoops:				
Flour-----	1	1	2	2
Sugar-----	1	1	2	2

**Small kitchen equipment, minimum requirements
for each layout—continued**

Item	Layout I 20-seat lunchroom	Layout II 31-seat lunchroom	Layout III 77-seat restaurant	Layout IV 156-seat cafeteria
Skillets, cast iron:				
8½-inch.....	1	1	1	1
12-inch.....	1	1	1	1
Strainers:				
Sieve, 6-inch.....	1	1	1	2
Trays:				
Cafeteria.....	--	--	--	20 doz.
Waiter.....	--	6	18	--
Tray stands.....	--	--	8	18
Miscellaneous:				
Board—				
Bread.....	1	1	1	1
Carving.....	1	1	1	2
Bottle opener.....	1	1	1	1
Cleaver.....	1	1	1	1
Corkscrew.....	1	1	1	1
Egg slicer.....	--	--	1	1
First-aid kit.....	1	1	1	1
Funnel.....	1	1	2	2
Grater and slicer.....	1	1	1	1
Grater, wire, icing.....	--	--	2	4
Hamburg turner.....	1	1	1	2
Hammer.....	1	1	1	1
Mops.....	6	6	12	24
Oil can.....	1	1	1	1
Pastry bag.....	--	--	1	1
Pencil sharpener.....	1	1	1	1
Pie server.....	1	1	1	1
Pliers.....	1	1	1	1
Rolling pin.....	1	1	1	1
Scales, table.....	--	--	1	1
Screw driver.....	1	1	1	1
Shears.....	1	1	1	1
Sifter, flour.....	1	1	2	2
Stepladder.....	1	1	1	1
Stools, 24 inches high.....	1	1	1	2
Tongs, serving.....	2	2	4	6
Towel rack.....	1	1	1	1
Wringer, mop pail.....	1	1	1	2

China, glass, and silver, minimum requirements for each layout

Item	Layout I 20-seat lunchroom	Layout II 31-seat lunchroom	Layout III 77-seat restaurant	Layout IV 156-seat cafeteria
China:				
Plates, 8- or 9-inch.....dozen	5	8	20	38
Plates, 6½-inch.....do	6	10	--	38
Plates, 5½-inch.....do	--	--	20	--
Sauce dishes.....do	6	10	20	38
Soup and cereal bowls.....do	5	8	15	28
Cups.....do	6	10	20	38
Saucers.....do	5	8	15	28
Glass:				
Juice, 4- or 6-ounce.....dozen	2	3	4	6
Water and milk, 8-ounce do	3	6	12	25
Iced tea, 10- or 12-ounce do	2	3	8	15
Salt and pepper shakers, dozen sets.....	1	1½	3	5
Sugar containers.....dozen	1	1½	3	5
Ashtrays.....do	2	3	4	6
Creamers, 1-ounce.....do	3	4	8	15
Silver:				
Knives.....dozen	4	6	12	25
Forks.....do	7	10	25	50
Teaspoons.....do	7	10	25	50
Dessert spoons.....do	4	5	10	20

CHAPTER VI

LAWS, TAXES, AND INSURANCE

Before you start to operate your restaurant you should familiarize yourself with the kinds of taxes you must pay, the licenses you must get in order to do business, and the regulations with which you must comply. Furthermore, you will want to protect your business by carrying various types of insurance. These subjects are covered briefly in this chapter.

With the exception of a few Federal regulations, most of the restrictions are placed on the business by State and municipal governments. And since requirements vary so widely among the different States and cities, you should by all means obtain authoritative advice as to your obligations in the particular State and city in which you locate.

You can get information and help on these matters from many reliable sources, such as the appropriate city, county, and State government offices; your lawyer or accountant; your local chamber of commerce; national, state, and local restaurant associations, and trade publications in the restaurant field. However, in order to give a more specific idea of normal regulations and restrictions, the following summary is presented. This list is merely suggestive of the type of control and does not include all the measures likely to be encountered.

Federal Laws

Income tax. A business operated either by an individual proprietor or under a partnership is not subject to a separate Federal income tax, although an information return must be filed in the case of a partnership. However, the proprietor or each partner, as an individual, must include in his personal income tax return his salary and the profits derived from the business. If the business is incorporated, there is also a corporation income tax. See Chapter XIV for income tax requirements.

F.I.C.A. and F.U.T.A. taxes. The Social Security Act includes two separate programs—old-age and survivor insurance and unemployment compensation. See Chapter XIV for details.

Excise taxes. Excise taxes are frequently confused with licenses. The restaurant owner might be required to pay excise taxes on: (1) the sale of malt liquor (beer, etc.); (2) the sale of alcoholic spirits; (3) the sale, coloring, or serving of margarine; and (4) coin-operated amusement devices.

Federal amusement tax. The Federal amusement tax is levied on establishments where dancing is permitted or where entertainment is furnished, except instrumental music by wire or a mechanical device. Spontaneous community singing does not constitute entertainment.

Federal Pure Food and Drug Act. Under the Federal power to regulate interstate commerce, the Pure Food and Drug Act is helpful to the restaurant owner and requires manufacturers who engage in interstate commerce to comply with certain health standards in the preparation of food. The Act also provides for proper labeling of food items.

State Laws and Regulations

State unemployment compensation laws. Unemployment compensation, known also as unemployment insurance, is part of the Social Security Act. Unemployment compensation provides weekly payments to an insured worker who loses his job and cannot find another immediately. Although subject to some Federal control, the system is administered by the State governments. Each State has its own unemployment compensation law, and rules for the payment of contributions (or taxes) and benefits differ. Check the requirements in your State.

Workmen's compensation laws. Workmen's compensation laws are in effect in most States. These laws provide for the compensation of an employee by his employer in case of industrial accident and give the employee the right to obtain compensation for an injury received in the course of his work, either on or off the premises, regardless of whether negligence on the part of the employer is proved. In some States the laws are compulsory, with little or no latitude for the employer. In others there are elective provisions; for example, it is possible for the operator to reimburse the employee himself or take out private insurance for this purpose.

Wage and hour laws. Legal restrictions are imposed by many States on the employment of women and minors in service establishments and governing the maximum hours and minimum wages for such workers. There are also requirements for safeguarding against machinery hazards. Some States have laws covering working conditions and fixing maximum hours for all employees.

Obtain from your State department of labor a digest of the labor laws pertaining to the restaurant industry.

Restaurant licenses. Many States have laws relating to licensing of restaurants, while in others this responsibility is delegated to the individual city or village. In still others, however, both a State and a city license is required.

Sales tax. Many States and local communities have a sales tax or a similar law. The percentage of tax varies in different States. The provisions usually require payment to the State or community of tax collected, which is usually based on the amount of the sale. In most instances this tax is added to the customer's check. Payment is then remitted periodically by the restaurant operator to the appropriate State or local government department. In some States a sales tax is referred to as an excise or privilege tax.

Income or wage tax. In some States there is an income or wage tax law which may be based on a graduated scale or a set amount paid by everyone. Payment of these taxes vary in different States. Some States require payment by the individual while other States may require the employer to deduct the tax from the employee's pay. In this case, periodical returns are made to the proper State government department.

Other State laws. Other laws may be in effect in your State. For instance, there may be a tax on personal property, and a real estate tax, if you own the building in which your restaurant is located. If the sale of liquor is permitted in your State, there is probably a law requiring the restaurant operator who sells it to obtain a liquor license.

You may need a license to sell cigarettes. Many States have laws that are more stringent than those of the Federal Government for food, milk and sanitation. Some States have fair employment practice laws. Some States require food handlers to have periodical physical examinations.

City and Local Ordinances

Building and health regulations. Generally, these laws or ordinances govern the type of construction of a building in which a restaurant may be housed, the number of entrances and exits, the type and placement of food receptacles and utensils, the type of garbage can to be used, and the plumbing, lighting, and ventilation. They set forth requirements concerning physical examination of employees, method of washing and sterilizing dishes, and refrigeration of certain types of food. Laws of this type are designed to protect the health, safety, and welfare of the patrons of

the restaurant. They provide for the periodic inspection by health authorities, and for penalties for noncompliance.

Restaurant license. In most cities a city license must be obtained before a restaurant can be opened for business. Before purchasing or starting a restaurant, it is important to check city ordinances carefully to insure that the building and location you have in mind meet all the requirements.

City liquor license. Many cities limit the locations in which liquor may be served, and a city liquor license must be obtained in addition to any State license and payment of Federal excise taxes.

Cigarette license. A city license is usually required for the sale of cigarettes.

Vending machines and juke boxes. In most cities a license is required to install vending machines and juke boxes.

Cabaret tax. Many cities have a cabaret tax, which is additional to the Federal amusement tax, if dancing or entertainment is furnished.

Special permits. Some cities have strict regulations prohibiting signs or canopies extending over the sidewalk. In others, it is necessary to obtain a city permit allowing the installation. A bond is usually required protecting the city in case of injuries to pedestrians by the falling of the sign or canopy.

Motor vehicles. City ordinances limit the parking of automobiles in busy sections. Parking requirements are exceedingly important to a restaurant operator, since inconvenience in finding parking space may seriously affect the volume of business.

Sales tax, income or wage tax. Some cities have a sales tax, income or wage tax which may be very similar to the State sales, income or wage tax.

Garbage disposal units. Some cities tax garbage disposal units.

Mercantile tax. Some cities impose a mercantile tax which may be based on the volume of sales or it may be a uniform amount.

Insurance

Insurance is a personal and economic necessity in any business. Without its protection, you may lose part or all of your investment and become liable for lawsuits that may be brought against you and your restaurant,

Although there are many types of coverage, we will discuss only those which are particularly desirable for the restaurant operator: Life, guaranty and fidelity, casualty, fire, use and occupancy, and public liability. Workmen's compensation insurance (page 72) is, of course, required by law in most States.

Other forms of insurance—burglary, automobile, travel, credit, etc.—may be necessary or advisable in your particular operation. The whole subject is complex and technical, with numerous rules and exceptions. Therefore, it is wise to consult a reliable insurance broker and, on his advice, place all policies through him.

Life insurance. Life insurance must be considered by independent proprietors and partners whose principal means of support is in their business.

It has become common practice in a partnership or corporation to take out life insurance for the benefit of the business on the partner or corporate officer whose personal service is deemed essential to the welfare of the business.

Guaranty and fidelity. Guaranty and fidelity insurance refers to bonds issued against dishonesty or embezzlement of funds by company employees, for contract performance, and for various other purposes. The cashier and any other person who has access to the cash of the business should be bonded.

Casualty insurance. Casualty insurance covers the risk of damage to property, such as plate glass, machinery, fixtures, and building.

Fire insurance. The purpose of fire insurance is to protect against financial loss because of damage to or destruction of merchandise, equipment, or buildings as a result of fire. Damage caused by smoke or water accompanying a fire on your own or adjoining property is also covered. No allowance is made, however, for loss because of interruption of business. Coverage is limited to the actual cost of replacing the property damaged, with due allowance for depreciation.

Use and occupancy insurance. Use and occupancy insurance protects against operating losses indirectly resulting from a fire. It provides payments to meet expenses which continue while the place of business is being repaired, and compensation to cover the profits lost because of business interruption.

Public liability insurance. Public liability insurance covers claims for personal injury suffered on the restaurant premises by customers or persons other than employees. The insurance company provides legal defense and pays judgments (not exceeding the amount of the policy) imposed for damages because of personal injury.

This insurance is an important safeguard for the restaurant operator, since his action in opening a restaurant can be construed as an invitation to the public to enter with the assurance of safety.

CHAPTER VII

PERSONNEL

The success of a restaurant organization depends greatly upon the skill, cooperation, and loyalty of the employees. Neither streamlined equipment nor managerial ability will result in a continuously successful restaurant operation, unless these are combined with the intelligent, cooperative efforts of a staff of loyal employees.

PERSONNEL POLICIES

The establishment of personnel policies is the first step in the development of an organization. The principles of selecting and training employees and of the conditions under which they do their best work apply alike to the operator who has few employees and the one who has many. The disorganized chaos found in some small kitchens indicates that here, as much as in the larger units, careful handling of personnel is essential. If decisions are made in advance, much time is saved.

The following list includes the more important personnel policies.

1. Pleasing environment where the owner takes personal interest in the employees.
2. Sanitary working conditions that provide all workers with light, clean, well-equipped, adequately ventilated working space, adequate lockers and a lavatory, and a pleasant, well-kept rest room.
3. Hours which do not exceed the maximum State hour limit, the union hour regulations, or the prevailing hours of work set in the community.
4. Equivalent time off on a convenient day if the employee works on a legal holiday or Sunday.
5. Vacations with pay after a year of employment should be a part of any sound personnel policy. A common practice in many industries is to allow 1 week after a year's employment. Another standard is 1 day's vacation with pay up to a maximum of 2 weeks for each month of service.

6. Wages to meet the requirements of the State minimum wage law and the prevailing wages for similar work in the community; where employees are organized wages must meet the union wage scale.

It is evident that the wage scale increases with certain requirements of the job, such as (1) responsibility; (2) knowledge, skill, and experience; (3) contacts with the public; and (4) working conditions.

Many employers classify jobs on the basis of these requirements and set a minimum and maximum rate for each classification.

7. Insurance carried by the employer to cover workmen's compensation, and group insurance made available to employees.

8. Clean, attractive uniforms. Uniforms are furnished and laundered by most restaurants in the interest of cleanliness and good appearance. Attractive uniforms inspire pride.

9. Protection and maintenance of health. It is to the advantage of the owner to help employees maintain their health. Healthy workers are more cheerful than those who are below par, and absentee and accident rates are lower. Good working conditions, reasonable hours, and vacations contribute to good health. And an employee should not be permitted to endanger the health of his fellow workers and of customers by working when ill. Many operators provide for payment to employees during short-term illness. In addition, first aid should be available in case of accidents, and medical care may be given for minor ailments by special arrangement with a physician.

Through the furtherance of such measures as group hospitalization and other health programs, the employer should encourage his employees to provide for the health of themselves and their families. Employees should have physical examinations at least once a year, and preferably every 6 months.

Good food is essential to good health and the wise employer sees to it that the workers have liberal and palatable meals which are nutritionally adequate.

10. Promotions as an incentive to good, steady work and a good attitude. If vacancies occur in key positions, they should be filled, whenever possible, by present employees rather than by bringing in outsiders. There should be a definite understanding with employees regarding promotion possibilities for every job.

11. Assurance of job security to employees who do satisfactory work.

12. Clear and definite understanding on the part of every employee of what is expected of him and to whom he is responsible. This prevents friction.

JOB DESCRIPTION

To select applicants intelligently, you must carefully consider the requirements of each job. Examples of typical individual positions are given here. In many small restaurants, however, one worker may handle several jobs. For instance a waitress may also perform some of the duties of a hostess; one cook may prepare all foods served, and many others of the positions described either may be combined or omitted in the small restaurant.

Restaurant Sales Jobs

Hostess. Under the direction of the manager or the dining-room supervisor, the hostess has charge of the dining room service. She schedules, instructs, and supervises the table service, salespersons, special food servers, and busboys. The hostess is responsible for receiving the guests, conducting them to suitable tables, and providing them with prompt, courteous service; for the order and condition of the dining room during the serving period; and for the proper clearing of tables and the care of supplies at closing time.

The hostess should be able to exercise judgment in meeting any situation. She should be able to command the respect of the employees and should be competent to direct and instruct the dining room staff. She should be familiar with restaurant service by experience and training.

Table service salesperson. The table service salesperson sets tables, sets up covers, takes orders, and serves food to the customers according to standardized serving instructions. She aids guests in their food selection and if requested gives information about the preparation, service, and price of foods. She keeps the serving station clean and orderly. At closing time she supervises the clearing of the serving station, and the putting away of supplies.

Cafeteria counter server. The counter server sets up the serving counter; maintains foods at the correct temperatures; procures supplies or directs the runners to do so; suggests food selections to the customers; if requested, gives customers information about the food; takes and serves food orders; keeps the counter clean and orderly during the serving period; puts away food and supplies in the assigned places; and clears and cleans the counter at the end of the serving period.

Busboy. The busboy assists one or more salespersons by providing supplies and equipment; helping with serving duties as directed; keeping side tables supplied and orderly, tray stands cleared of soiled dishes, and the floor clean; and performs other duties as may be assigned to him.

Cashier. The cashier receives payment for food served in the restaurant and returns the proper amount of change to the customer. She does related clerical work, and performs other assigned duties.

Restaurant Food Production Jobs

Baker. The baker makes rolls and hot breads, pastries, cakes, cookies, and puddings. He is responsible for producing standard products of uniformly high quality. He supervises the care of the bake-shop equipment and the cleanliness of the working areas.

Cook, general. The general cook prepares and cooks soups, sauces, meats, and vegetables under direction of the manager or kitchen supervisor, and may also serve or dish these foods. He may bone and cut meats, prepare fish and poultry, bake hot breads and make desserts, and, in a small restaurant, supervise other kitchen employees.

Cook, assistant. The assistant cook helps the cook to prepare and serve foods. He prepares vegetables for cooking, operating the necessary peeling, chopping, grinding, and other mechanical equipment. It is his responsibility to service and clean kitchen equipment and keep the cook's area clean and orderly, and he may do such other tasks as are assigned by the manager or cook.

Cook, lunch counter, short-order. The cook in a short-order lunch counter cooks to order grilled and fried meats and fish, eggs, hot cakes, waffles, sandwiches, and other quickly prepared foods.

Kitchen assistant. The specific duties of the kitchen assistant depend upon the size of the establishment and the number of persons employed. But some of the tasks he is called upon to do include washing and drying pots, pans and other utensils used in food preparation and service; cleaning mechanical kitchen equipment; putting away clean utensils; and carrying out garbage and waste and cleaning cans. He may also sweep and scrub kitchen floor; clean refrigerators and wash cupboards and windows; assist in paring and preparing vegetables; and relieve cooks of routine operations, such as stirring foods.

Salad and sandwich worker. This employee prepares fresh fruits, lettuce, celery, and other vegetables, salads, cocktails, salad and sandwich plates and other cold dishes; makes sandwiches for short orders or in quantity; prepares tea, coffee, and other beverages; and slices cold meats and cheeses. It is also his duty to keep preparation and storage space and equipment clean and orderly.

Storeroom man. It is the responsibility of the storeroom man to receive and inspect all incoming foods and supplies; check the amounts and weights of the goods received with the purchase

order and promptly report any discrepancies or inaccuracies to the manager; and store foods and supplies properly, issuing them in accordance with requisitions. He may also keep an inventory of foods and supplies, report shortages to the manager, and advise the date when new supplies may be needed. In a medium-sized or small restaurant, these duties can be successfully combined with those of a butcher.

Cleaning Jobs

Dishwasher. The dishwasher operates the automatic dishwashing machine and/or glasswasher to wash china, glassware, silverware, and trays; scrapes, rinses and stacks soiled dishes; loads and unloads dish baskets; and sorts and stacks clean dishes. He polishes silverware periodically; keeps trays in good condition; and cleans the dishwashing machine and the working area.

Porter. The porter may be assigned to transport supplies as necessary to various parts of the restaurant. He sweeps and scrubs floors; may keep supply refrigerators clean; empties and washes trash and garbage cans; polishes metals; cleans entrances and does other work assigned by the manager or kitchen supervisor.

SIZE OF STAFF

The number of employees you need is affected by such factors as type of service, menus, layout, labor-saving equipment, number of meals served, and number of customers served per meal. Because of great variations in all of these factors it is not possible to give exact figures as to personnel requirements for an individual eating place.

Cafeterias, industrial restaurants, and lunch counters show a higher ratio, 1 to 50 or 60, because service employees may be fewer, they usually serve more meals per day than do the small service restaurants, and the menu may be more limited. The labor requirement is sometimes stated in terms of minutes of labor time per meal served.

In the average cafeteria, food preparation, service, and cleaning require about equal amounts of labor time. Cleaning includes all porter work and dishwashing. In a service dining room, service time may be slightly higher than cleaning time; in a lunchroom, preparation and service time are combined, being approximately two-thirds of the total.

Set up your working plan, based on the questions: What work has to be done? When does it have to be done? Who has to do it? How long does it take?

As part of the plan prepare and give to each employee a schedule of his duties. These schedules may, of course, have to be adjusted to take care of the absence of some employees and either special abilities or slowness of others.

Many positions can be filled with part-time employees; in fact, on many of the sales jobs, such a plan may work out more efficiently than hiring personnel on a full-time basis. It also enables the operator to employ capable, dependable neighborhood women who will work for several hours a day.

SELECTING EMPLOYEES

Sources

There are several sources through which the restaurant owner can obtain employees. Among these are friends and acquaintances, employment agencies, "help-wanted" and "situation-wanted" advertisements, and personal applications.

Friends and acquaintances. Friends and acquaintances are sometimes able to recommend possible candidates. Such recommendations are among the most satisfactory methods of obtaining staff replacements. They are usually made with the needs of the business in mind and are made by persons who would not knowingly sponsor unsuitable candidates.

Employment agencies. Employment agencies are of two general types—public and private. The United States Employment Service maintains a system of public employment offices in each State and in the larger urban localities. This service is organized for the benefit of both employers and workers. Private employment agencies are organized for profit and usually charge the applicant a fee for placement. Some of these agencies specialize in certain classes of employment and may, therefore, be particularly valuable sources for skilled employees.

Newspaper advertisements. Some employers prefer to use "help-wanted" advertisements in the daily papers. Restaurant operators located in smaller towns and those within approximately 40 miles of large employment centers in metropolitan areas often use the classified advertisement as the chief means of obtaining employees. The advantage of using this method is that it reaches a large number of potential applicants. But there is a disadvantage in that it usually brings many calls from unsuitable persons, and necessitates considerable sifting to find desirable candidates.

Personal applications. The personal call by an interested applicant is one of the best ways of securing workers. The advantage of the personal interview as a means of selecting a new employee is that much about the applicant can be determined quickly. A

decision can be made during this interview as to the suitability of the prospective employee with regard to appearance, language usage, alertness, and general attitude. At the same time information about the applicant should be recorded, including the names of former employers.

In a good personal interview the employer takes time to discuss carefully the job qualifications with the applicant, and, through friendly discussion, determines how well the person meets these standards.

The applicant, as a rule, should not be placed until you have had time to check his previous employment record.

The Application

Employee application and employment data sheet. No matter how the applicant is obtained, you must learn certain things about him. He may either mail his completed application sheet or bring it personally. The information you should have is listed here; how detailed it must be depends on the position applied for.

Name

Address

Telephone number, if any, or

Telephone number where he or she may be reached

Person to call in case of accident

Date of birth

Social-security number

Sex, color or race, marital status

Position desired

Education

Previous work experience

Name and address of last employer

Health card (where required by law)

Working papers (if a minor)

After this part of the form has been completed and the employee is considered for a position in the restaurant, certain points concerning the job should be discussed with him in a personal interview.

This is the information you must furnish:

Date on which the applicant will begin work

Hours and wages

Total hours per week

Overtime hours and wages

Day off

Meals allowed, including restrictions

Arrangements for coats, trousers, uniforms, and aprons:

Furnished by

Laundered by

Number allowed per week, emergencies excepted

Arrangements for meal allowance and report of tips under the social-security and income-tax laws.

If the applicant is hired, this information should be entered on the sheet in his presence so that he understands every point in the agreement. This is essential for the protection of both employer and employee.

Physical Requirements

Physical ability and aptitude for handling the tools and equipment are needed in restaurant work. When selecting employees it is important to look for physical aptitude and coordination that will enable the employee to develop the required skills readily.

Although there are exceptions, most restaurant employers prefer to select employees who are of average height and normal weight. This practice is followed because a person of average size usually looks better in uniform and uses the equipment more conveniently.

Good posture is also important for every restaurant employee, as is a clean skin, free from blemishes. Clean, well-kept hair, hands, and nails signify the personal standards of the applicant.

Good vision is essential for all restaurant workers. Good hearing is needed particularly by those who deal with the public or who supervise others.

Restaurant employees who must stand or walk for long periods must have feet that are in good condition and free from painful callouses, bunions, and corns. Employees who have varicose veins seldom can stand up under the strain of active restaurant jobs.

The general health of the prospective employee is very important to the employer if absenteeism is to be avoided and labor turnover reduced. It is desirable to require an applicant who is otherwise satisfactory to be examined by a physician before final employment. This examination should show general physical fitness, and freedom from venereal diseases or active tuberculosis. Employees who handle or serve food should not be "carriers" (that is, should not harbor the germs) of diphtheria, typhoid fever or other contagious diseases. Many employees find it advantageous to have these examinations made at their own expense at regular intervals, say, once or twice a year.

Many community health regulations require that a restaurant employee have a physical examination and also receive a food

handler's permit before employment. In some communities, this permit must be renewed at regular intervals.

Educational Qualifications

Many jobs call for specific educational background but for all general service employment there seem to be certain minimum requirements, such as ability to read and write, and to add, subtract, and multiply. Some operators want all applicants to have a grammar school education or its equivalent; a high school education would be an asset to a cook, baker, head counter worker, head waitress, checker and cashier or others who may be called upon to perform supervisory tasks.

The mental abilities necessary for various jobs differ widely. It is important to fit the ability to the requirement in selecting employees both for the job under immediate consideration and for possible promotion.

Personal Qualifications

Emotional stability is desirable for all persons who work with others; it is essential in restaurant employees if friction is to be avoided and if the organization is to function smoothly under the tension which develops during periods of heavy, fast work. Bickering, loud recriminations, sulking, and hysterical scenes disrupt any group. The employee who is obviously neurotic in his suspicions of others or in his desire for constant attention to his many ills is likely to be a troublemaker and an undesirable worker.

Habits of steady, thorough work are necessary, so that the proper routine can be carried out without extensive supervision.

Energy, conscientiousness and cooperativeness are desirable attributes for every employee.

TRAINING EMPLOYEES

Training personnel is one of the most important responsibilities of restaurant management. Through effective training you may be able to increase sales and the amount of work accomplished, reduce operating costs and the amount of supervision required, and improve employee morale.

On-The-Job Training

Most restaurants have some type of on-the-job training. It may take the form of verbal or written instructions, demonstration of methods, charts and posters, instructions carefully prepared and posted in locations in which they are to be used, films and slides, and employee meetings.

On-the-job training helps a new employee to become adjusted to the job, learn the working methods and regulations, and get acquainted with the restaurant's policies. When instruction is given according to the best-known methods, the employee is taught how to perform the work in the manner desired.

In the training program *How To Teach an Employee*, which is available to restaurant supervisors through State and local boards of education, the following content is covered:

1. The weaknesses of two common teaching methods—telling and showing—and the strength of the demonstration method of teaching are explained and illustrated.

2. The making of various types of job break-downs for institutional purposes is explained and illustrated. This is followed by practice in making job break-downs by each member of the group present.

3. The following four basic steps in teaching an employee are explained and illustrated:

- (a) Preparing a learner to receive instruction
- (b) Presenting new subject matter to a learner
- (c) Application of the subject matter by the learner
- (d) Testing, checking, and following up of the learner

4. The application of these four basic teaching steps is made to the following three common teaching situations in the restaurant or other type of business:

(a) Teaching an employee how to perform a manipulative type of task, for example, operating a mixer wrapping coins;

(b) Giving employee necessary facts and information and teaching him how to use them on the job, as in learning to run a mixer;

(c) Helping an employee to develop correct attitudes, for example, cooperation with fellow employees.

5. Supervised practice in handling each of the above types of teaching situations is provided for each member of the group.

6. The follow-up of teaching and its relationship to effective supervision is fully explained and illustrated.

So effective has this training program proved in the many restaurants that have adopted it, that job break-downs are now worked out for the different jobs and kept on file for instruction. The following forms will illustrate how this is done by the manager:

Use of mixer—medium size bench model

Steps

Key points

- | | |
|-----------------------------------|--|
| 1. Place bowl in bowl support ... | 1. Bowl has three hook holes on outside of rim which are used to hold bowl into position. One in center back—one on each side. |
|-----------------------------------|--|

Steps

Key points

- | | |
|---|---|
| 2. Attach paddle, beater or dough hook. | 2. Place bowl into position with center back hook hole in correct contact with hook found in center back of support rim and with two side hook holes over two small posts found on either side of supporting rim. |
| 3. Pull lift handle up | 3. These three points must be correctly adjusted or paddle (or beater) will not move freely in the bowl. |
| 4. Set speed | 1. Have lift handle in lowered position. |
| 5. Start motor | 2. Place paddle (beater or dough hook) inside the bowl. Bring top of paddle up onto rod, push up and turn to the right to lock into position. |
| 6. Stop mixer when through mixing. | 1. To bring bowl into position. |
| 7. Lower the lift handle | 1. Correct speed for mixing ingredients is important—otherwise splashing or overmixing may result. SEE INSTRUCTIONS on recipe card. |
| 8. Release paddle (beater or dough hook). | 1. Turn switch to "on" position. |
| 9. Lift bowl from rack support. | 1. Turn switch to "off" position. |
| 10. SAFETY RULE | 1. This lowers the bowl. |
| | 1. Push up, turn to the left, then pull down. |
| | 1. Never put your hand or spatula inside the bowl when paddle is in motion. |

Training restaurant sales personnel. Through the vocational training program made possible by the George-Deen Act of Congress, the Distributive Education Branch, U.S. Office of Education, Department of Health, Education and Welfare, in cooperation with the National Restaurant Association, within recent years has developed training programs for restaurant employees throughout the country. A manual, *Training Restaurant Sales Personnel* (Education Bull. 222), which the Service prepared in 1942, contains information on training the hostess, waitress, cashier, counter worker, busboy, floor girl, and other specific restaurant salespersons. This manual is available for 75 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

EMPLOYER-EMPLOYEE RELATIONS

Good human relations, as well as clearly defined personnel policies, are considered today to be factors of first importance in maintaining a loyal, efficient staff. Sound personnel policies remove the sources of most employer-employee difficulties, because

they give employees the reasonable security which every individual needs and eliminate unpleasant features of the job.

Several other suggestions for developing satisfactory human relations are:

1. *Official induction.* A large percentage of personnel turn-over occurs during the first month of employment. Reasons given indicate that new employees feel the need to be welcomed into the organization; to be shown their way around; to be assigned specific rest periods, lunch hours, and days off; to have clear explanation of policies, and of payroll deductions covering taxes; and most important of all, to be introduced to the people with whom they are to work.

2. *Tactful criticism.* When criticism is necessary it should be made in private. The successful manager makes sure that the worker understands the reason for a reprimand.

3. *Fair handling of grievances.* All employees need a chance to talk over the things that bother them. Listen sympathetically to expressed grievances. Impartial treatment by the employer inspires a cooperative attitude on the part of employees, thus preventing friction and complaints.

4. *Recognition of special performance.* Some type of recognition may be given for promptness, good safety records, increased sales, low breakage, long service, and for practical suggestions that help to improve work or reduce expense.

5. *Personal interest in the employee.* The employee should be made to feel that you are interested in him as a person, value him as a member of the group, and if necessary will assist him with personal as well as business problems.

A supervisory course, Human Relations Training for Supervisory Personnel, has been developed by the Distributive Education Branch, U.S. Office of Education, Department of Health, Education and Welfare, to help supervisors formulate a practical way of getting the best results from the people under them. It is believed that such skills can be acquired through proper analysis of the fundamental principles of good supervisor-employee relations. The guiding principles expressed in this course are summarized in four points: (1) Treat people like individuals; (2) make best use of worker's abilities; (3) provide job satisfaction; and (4) plan and work together.

The training program is made available to restaurants and other business groups free of charge, through State and local boards of education. Owners and supervisors of restaurants in the community can band together and have this course given them by a representative from the vocational department of the board of education, whenever such a teacher is available.

CHAPTER VIII

MENU PLANNING

Some restaurant operators settle the broad policy as to the kinds of food to serve when they decide on type of eating place, location, and equipment. The menu of a fountain luncheonette will naturally differ from that of a waterfront seafood restaurant. And an assortment of dainty foods, appropriate in a tearoom serving women shoppers, would be out of place in a roadside diner catering only to men doing hard physical work.

Menu-making for small restaurants can be a relatively simple process. Many establishments specialize in two or three items regularly. Others build their reputation on one dish only. A number of restaurants, however, have a simple but well-rounded menu. The following discussion presents the general principles of menu planning which can be adapted to services of any size.

Designing the Menu

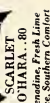
The appearance of the menu itself is the first point for consideration. The menu is the customer's introduction to the restaurant. It informs him of the dishes available, the manner in which they are prepared, and the cost. It is planned to sell the food, to conform to the atmosphere, and to advertise the restaurant. It can be helpful in building customer satisfaction and good will.

The menu card should be simple, handy in size, easy to read and understand. In short, it should be attractive and suitable.

When the menus are on a printed form, the back of the menu is frequently used for a friendly public relations chat. The subjects discussed may be phases of the operation itself, aspects of food and nutrition, or other timely topics. The name of the restaurant, address, date, and time of service is clearly listed on the menu.

Many small restaurants use a duplicating machine of some kind for preparing the menus. Enough are run off to permit discarding soiled menus.

Before distribution, the menu should be carefully checked for correct spelling, phrasing, and pricing.



WHISKEY
SOUR..75

**BLACKBERRY
RICKEY**.65
*Blackberry Brandy,
Fresh Lime Juice*

Minted Fruit Cocktail . . 20 Chilled Tomato Juice . . 15
Cream of Fresh Mushroom Soup, Cup . . 20 Bowl . . 25
Fresh Seafood Cocktail . . 35

Thioned Vegetable Soup Minted Fruit Co
Tomato Juice Cream of Fresh Mushroom
Fresh Seafood Cocktail

Old Fashioned Vegetable Soup Minted Fruit Cocktail
Chilled Tomato Juice Cream of Fresh Mushroom Soup
Fresh Seafood Cocktail

TENDERLOIN with ITALIAN RICE, Mushroom Sauce. .2.05
Crisp Head Lettuce Salad

FRESH LAKE WHITEFISH with LEMON BUTTER., 1.90
Parslied New Potatoes
Stewed Tomatoes

CHARCOAL BROILED TENDERLOIN STEAK...2.50
Parslief New Potatoes
Garden Fresh Spinach

BRAISED SWISS STEAK, 2.15
*French Fried Eggplant
Whipped Potatoes and Gravy*

DIXIE FRIED SPRING CHICKEN . 2.25
Stuffed Peach and Strawberry Salad

Rolls

Fresh Strawberry Ice Cream Cake
Jellied Fruit with Whipped Cream
Compo of Assorted Fresh Fruits
Vanilla, Chocolate or Special Ice Cream
Hot Butter Toffee Sundae
Dartlett Pears in Syrup

FEATURED DINNER . . . 1.70

PROAST LEG of LAMB with FRESH MINT SAUCE
French Fried Eggplant *Garden Fresh Spinach*
Criss Cross Apricot Pie or Selection of Ice Cream
Rolls Coffee, Tea or Milk

Tonight Enjoy —

Tonight Enjoy —

**"The Flavor That
Made Us Famous"**

ENDERLOIN STEAK
Charcoal Broiled

Charcoal Broiler to Your Satisfaction

LOIN LAMB CHOP, two chops, .25 one chop, .160

Whipped Potatoes with Butter, Stuffed Peach and Strawberry Salad

FILET MIGNON, Half Pound.....	2.75
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ITALIAN RICE

ROAST BEEF TENDERLOIN with ITALIAN RICE, Mushroom Sauce.....1.60

Fresh Asparagus and Crisp Head Lettuce Salad

FRESH LAKE WHITEFISH with LEMON BUTTER.....1.45

Parslief New Potatoes, Stewed Tomatoes

ROAST LEG of LAMB with FRESH MINT SAUCE.....1.45

French Fried Eggplant and Buttered Fresh Spinach

BRAISED SWISS STEAK.....1.70

Whipped Potatoes and Gravy, French Fried Eggplant

GULF SHRIMP SALAD with CURRY DRESSING.....125

French Fried Eggplant and Tomato Slices

DIXIE FRIED SPRING CHICKEN.....	1.80
---------------------------------	------

Fresh Strawberry Ice Cream

Fresh Strawberry Ice Cream Cake, .25 Chocolate Chip Chiffon Pie, .25

Jellied Fruit with Whipped Cream . . 20 Covered Apple Pie . . 20

Compote of Assorted Fresh Fruits, .20 Criss Cross Apricot Pie, .25

Vanilla, Chocolate or Special Ice Cream...20

Hot Butter Toffee Sundae. .25 Bartlett Pears in Syrup. .20

Camembert Cheese with Toasted Wafers. .35

Coffee	10	Mill	15	Lead Tin or Coffee	15
--------	----	------	----	--------------------	----

Coffee...10 *man...*...13 *new ten of coffee...*...13

100

Types of Menus

The menu may have a fixed price for an entire meal consisting of several courses; this is known as *table d'hote*. Or, the dishes may be separately priced; this is called *a la carte*.

Many menus have a standard *a la carte* section, which is changed infrequently and not dated, together with a *table d'hote* section sometimes spoken of as the *carte du jour*, meaning the menu of the day. On the menu of the day, which is dated, the specials, combinations, and dishes for that day are featured.

One form of menu that is gaining in favor is the selective menu in which the price of the entree or main course determines the cost of the meal. In other instances, each course carries a separate price, and these in turn vary with the selection. The customer is free to choose as many or as few courses as he desires. This latter type of menu cuts waste since the customer is inclined to order only what he is going to eat. Statistics show that only 25 percent of customers order soup or appetizer if it carries an extra charge, but 65 percent will order dessert.

The trend in all types of menus is toward a limited number of items. A menu with a limited number of dishes, the majority of which are fast-moving items, is ideal for small and large restaurants. A relatively small variety of foodstuffs has to be kept on hand. The food moves quickly, and there is little chance of loss from spoilage. Left-overs can be kept at a minimum because production can be more carefully controlled. Fewer employees are needed in the kitchen and pantry. Cooks are able to concentrate on the proper preparation, seasoning, and serving of a few items so that these may be exceptionally good. Since the patron takes less time to make selections, salesgirls can step up the service by taking care of a greater number of customers.

Menu Pattern

For the customer's convenience in making food selections, a general menu pattern suited to each restaurant should be followed. This practice facilitates the service by grouping the selections conveniently.

An *a la carte* menu arrangement is as follows:

Breakfast menu:

Fruits	Meats
Cereals with cream	Specialties
Eggs	Toast and hot breads
Preserves, jellies, and marmalades (these sometimes are listed after the fruits)	

Luncheon and dinner menus:

Appetizers (sometimes include soup)

Soups

Entrees. This group may be subdivided as:

Eggs and egg dishes

Fish

Shellfish

"Made" dishes

Roasts

Steaks and chops

Vegetables

Salads

Breads

Sandwiches. These are sometimes listed as to type such as:

Plain or untoasted sandwiches

Toasted and triple-deck sandwiches

Hot sandwiches

Desserts. This may be grouped as:

Fruits

Puddings

Cakes and cookies

Pies and other pastries

Ice cream and ices

Cheese and crackers

Beverages

Courses offered on the table d'hôte menu or club meal follow an accepted order similar to that usually found on the a la carte menu.

Specially featured dishes or combinations are usually announced on the menu in a prominent place. They may be printed on a separate slip and clipped to the menu. Heavier type, too, may be used to attract the guest's attention to a particular offering. Luncheon and dinner specials frequently carry a separate heading, such as, "Today's Special," "Chef's Suggestion," "Featured Dinner", "Low-Calorie Luncheon", or "Shoppers' Special" and may be inclosed in a box.

A prominent place on the menu for any dish is at the top of the list for that course. Statistics show that more people order the first dish on the list than any other.

It is not good merchandising to arrange items according to price. If the lower priced items are listed first, the customer's attention will be focused on these and the higher priced dishes may be neglected.

Menu Maker

Menu planning is one of the most important functions in the restaurant. It requires knowledge, time, thought, study, imagination, and ingenuity.

Menus that will build business cannot be made on the run or in a hit-and-miss fashion.

Nor can interesting menus be made at the end of a busy day when you are tired. Menus should be made when you are fresh, alert, and full of enthusiasm. The best menus will be made by the resourceful person who is on the lookout for the new dish, the new recipe, the new idea, the new phrase, or the new way.

While the chef may be an excellent cook and should be consulted when planning menus, he should not be left with the entire responsibility. If the restaurant is a small one, you should make it your business to supervise this work. You are in close touch with the customers and should encourage them to tell you their likes and dislikes. If the business is a large one a specially trained person—preferably one having a certain type of home economics training should be in charge of menu planning. The menu maker must first have a considerable amount of specific information and, secondly, he must keep the customer point of view.

You must know food values and the basic principles of good nutrition. People are becoming more nutrition-conscious every day, and properly so. It is good business for the restaurateur to bear this in mind when planning menus.

The knowledge required can be obtained through study of text books and the material prepared by Government and other agencies. (See p. 213.)

You should be discriminating in food standards. Quality foods are the cheapest in the long run. You must be able to recognize quality in the raw and the finished product.

You must know combinations which have appetite appeal. Foods appeal to appetite through color, flavor, texture, and variety of form. Here is an example of a poor vegetable-plate combination:

Vegetable plate

Green peas	Fresh green string beans	Carrot strips
Brussels sprouts	Baked potato	Poached egg
Broccoli with Hollandaise sauce		

1. There are too many vegetables for an attractive plate. It would have been better to have concentrated on three or four well-cooked and appetizingly served.

2. There are too many vegetables of green color.

3. Two vegetables, brussels sprouts and broccoli, have the same general flavor. It is inadvisable to serve two vegetables of the same family or two which are strongly flavored such as cauliflower and brussels sprouts; cabbage and broccoli; kohlrabi and turnips; cabbage and cauliflower.

4. There are two legumes—peas and beans.

5. There is no vegetable on which the poached egg can be served attractively.

Here is the vegetable selection from another menu:

Kohlrabi	Mashed or boiled potatoes
Buttered celery knobs	Chopped cabbage

Again, it is evident that little consideration was given to the color combination or flavor.

On still another menu the vegetable list was as follows:

Mashed potatoes	Mixed vegetables
Parsley boiled potatoes	Vichy carrots

A customer ordering mixed vegetables and the vichy carrots from this menu received carrots and peas in one dish and buttered carrots in the other.

Contrast this combination with the following which meets requirements for an appetizing vegetable plate or for a selection of any two:

Broiled whole tomato	Fresh spinach with poached egg
Raw or buttered carrot strips	Baked potato

Contrast in texture and form are important. If the majority of entrees are stewed, chopped or served in gravy, or if all the vegetables are creamed or served in sauces, the menu will lack appeal to eye and appetite. For the same reason a vegetable plate of cooked cabbage, beet greens, and spinach would prove uninteresting.

You must know the capacity of all departments and plan menus for ease of production. You need to know the load which can be successfully handled by each department and the amount of food that can be produced in a given time with each piece of equipment.

You must take into account the amount of handwork that can be accomplished in each department. Contrast the time required for making meat and rice balls with that of putting a roast in the oven.

You must plan a menu which will divide the kitchen preparation evenly and will distribute the load on the cooking equipment. For example, the manager of one cafeteria in which a set luncheon meal was served complained of the shortage of oven space, yet planned for 1 day's luncheon menu the following items:

Boston baked beans	Pan-browned parsnips
Candied sweet potatoes	Salad
Applesauce	

From this menu, it is evident that little consideration was given to the load on the equipment. The Boston baked beans, sweet potatoes, and pan-browned parsnips required oven space; the top of the range was not in use. In addition, the menu had some of the faults suggested above; the baked beans and sweet potatoes,

were starchy, sweet-flavored vegetables, and with the applesauce, were of the same general color.

Menus that are too elaborate from a production, equipment, or service standpoint have far-reaching effects. The quality of the food suffers, the employees are disgruntled, the service is slowed up, and the customers are dissatisfied.

You must obtain full value from all purchases and plan the menu to take care of all the food purchased. For instance, if a leg of veal is bought for cutlets, you must plan a dish containing the small, scrappy pieces that cannot be used as cutlets. Similarly, chop suey might be put on the menu to use the small pieces from ham steaks or baked ham.

You must keep in touch with market conditions. You must follow the market closely through daily papers, Government releases, dealers' quotations, current price sheets and radio. These and your menu file index, magazines, and books should be kept close at hand.

When an item goes above the price you can afford, it is wiser to leave it off the menu rather than to purchase an inferior quality. On the other hand, in the larger markets there are frequently bargain buys.

You should be aware of the foods that can be obtained locally. Many restaurants have built up a reputation by featuring some of the popular foods obtainable in the locality. Farmers are usually willing to cooperate even to the extent of planting special items and packing them according to the uses of the restaurant.

You must follow the day's sales and know your customer's preferences. This is not difficult if you keep a file of marked menus, recording the number of portions of each dish sold daily. This is an accurate tabulation of what patrons like best; at the same time, the slow-moving items are noted.

You must not let personal preferences be the guiding factor. Too often the menu maker is inclined to consider his own likes and dislikes and to avoid foods that do not particularly interest him. For example, one menu planner always omits lemon pie because he does not like lemon; another never puts frankfurters on the menu because he never eats them himself.

You must know how far ahead to plan menus. In small restaurants, it is advisable not to make the menus far in advance. A rough draft can be made out for a week or 10 days in advance, but market conditions, unexpected good buys, and many other factors will necessitate changes.

Many smaller operators do not complete the dinner menu until the luncheon service is over and an inventory of the refrigerator has been taken. Left-over foods and perishable items are then

worked into the dinner menu. This prevents waste and controls costs.

In planning menus, you should follow weather predictions and note special events, holiday occasions, and other factors that influence sales.

You must insure variety. Except in a restaurant which features certain items regularly, the menu maker should strive for variety. You should keep a file index of suggestive lists of appetizers, soups, meat, fish, and poultry dishes, egg dishes, cheese dishes, meat alternates, vegetables, salads, sandwiches, fruits, desserts, and breads. This can be arranged in alphabetical order.

You must know food costs. The menu maker must know how to figure food costs; must know the cost of every individual item on the menu; must be familiar with long-profit items, as well as short-profit ones, and know how often and when to feature these.

You must maintain quality, however, and the size of the portion must not be sacrificed in order to keep food costs low. The important thing is to strive for a proper food cost attained through correct procedures and efficiency.

Planning Menu From the Customer Point of View

Menus must not be misleading. The wrong impression may be given the customer by the wording on the menu; this is often due to the desire of the menu planner to attract the attention of the guest to a certain dish and to merchandise this dish in quantity. Menus, by and large, reflect the character of the restaurant. They must tell the truth as well as do a satisfactory selling job.

The menu of one restaurant listed the item "Sirloin Steak Sandwich." When ordered, it proved to be nothing more than a hamburger sandwich. It may have been chopped sirloin, but the menu did not say so. The wording was misleading and caused resentment on the part of the customers.

Another listing read "Breast of Chicken With Fresh Mushrooms and Supreme Sauce." One would naturally expect a piece of solid breast of chicken with fresh mushrooms and sauce; what was served was creamed chicken to which had been added diced mushrooms. No matter how well prepared this dish might be, it would not come up to the guest's expectation for sliced breast of chicken with mushrooms and Supreme sauce.

There is a strong appeal, however, in descriptive wording that is truthful and not misleading. A few well-chosen adjectives or phrases help to describe the dishes offered by the restaurant and assist in forming a pleasing association in the mind of the customer. The words should be such that they stimulate the appetite and assist in the sale of the dish. For instance, the terms "new

green" string beans, "fresh" salmon, "iced" cantaloupe have greater appeal than string beans, salmon, and cantaloupe, but they must be truthful.

Customers also appreciate knowing the method of cooking, and the menu is improved when such terms as *broiled* whitefish; *fried* filet of rock bass; *boiled* parsley potato are used.

Some descriptive terms used to indicate quality of specific foods include:

New—potatoes, asparagus, carrots, beets

Green—peas, beans, onions, applesauce

Young—vegetables, chicken, lamb, veal, turkey hens, steer beef

Fresh—fish, shellfish, eggs, fruits, vegetables, milk

Chilled—melons, fruit cup, vegetable juices, fruit juices, strawberries, salads, consomme

Cold—sliced meats, "cold plates"

Iced—melon balls, fruit juices, tomato juice, coffee, tea, soft drinks

Crisp—bacon, waffles, potato chips, lattice potatoes, melba toast, celery hearts, lettuce

As a word of caution, it is well to note that descriptive wordings can be overdone.

Use foreign terms correctly. Many customers hesitate to order unfamiliar dishes or dishes bearing foreign names and unknown terms. This fact has led to a tendency to use American names and terms wherever possible.

Since, however, many of the leading chefs in America were formerly foreign-born and trained, many foreign terms now have a permanent place on our menus. The meaning of these terms should be clearly understood so that they may be used correctly and explained to the customer on request. In fact you may find it to be good advertising to print the list below on the back of your menu. Customers will find it useful and informative.

Some of the terms most frequently used are as follows:

à la	after the style or fashion.
à la carte	on the bill of fare.
à la king	served in a cream sauce containing mushrooms, green peppers, and pimientos.
au jus	served in its natural juice or gravy.
bar le duc	preserved red currants.
borscht	Russian soup made of beef stock and beets.
brochette	meat broiled on a skewer.
café au lait	coffee served with hot milk.
café noir	clear black coffee.
canapé	a small piece of toast or fried bread spread with savory foods and served as an appetizer.
carte du jour	menu of the day.

compote	fruit stewed in sirup.
consommé	clear meat stock served hot or jellied.
creole	prepared with tomatoes, green peppers, and onions.
crepe suzette	thin French pancake rolled and served with a sauce.
croutons	small pieces of fried or toasted bread used as accompaniments for soups.
demitasse	small cup of coffee.
éclairs	French choux paste filled with a cream filling and iced.
entrée	truly a made-dish served before the roast or meat course. As commonly used in restaurants, may include all main dishes.
en casserole	baked or served in an individual dish.
filet	a boneless loin cut of beef, veal, or pork, or a boneless strip of fish.
fricassée	meat or chicken stewed and served with thickened sauce.
glace	frozen or glazed.
hollandaise	a seasoned emulsion sauce made from butter, egg yolk and lemon juice.
hors d'œuvre	savory foods served as appetizers.
jardinière	a mixture of garden vegetables.
julienne	cut in thin strips.
mayonnaise	an uncooked salad dressing made with egg, oil and lemon juice or vinegar.
meringue	a baked dessert or topping made of white of egg and sugar.
parfait	ice cream served with sauce and whipped cream in a special glass.
poulet	chicken.
printanière	spring; may be used to describe service with fresh vegetables.
purée	a thick-sieved vegetable or fruit; a thick-sieved soup.
ragout	a rich stew of highly seasoned meat and gravy.
rissole	browned.
sauté	fried in a small amount of fat.
souffle	light, puffed; a light egg mixture served as an entree or sometimes when sweetened as a dessert.
table d'hôte	a meal of several courses served at a set price.
timbale	molded vegetables or meats set in custard; sometimes applied to thin batter case fried in deep fat to hold creamed meat or vegetables.
tutti-frutti	a mixture of fruits.
vol-au-vent	a puff-paste enclosing a delicate minced meat.

Customers look for seasonal foods. Seasonal foods should be featured, since patrons expect to find these on the restaurant menu. Such foods keep menus in vogue and prove good stimulants to appetite.

To assist in featuring foods in season, it is advisable to keep on file a collection of menus arranged by seasons or watch the market closely.

Selections should suit women as well as men. When the menu maker is a man, his selections are apt to favor heavy, hearty dishes. If all of the customers are men, as in some industrial

restaurants, this will be satisfactory. Otherwise, he must plan menus which are sufficiently flexible to suit the tastes of the feminine clientele who watch calories or prefer lighter meals, such as salads, dainty hot combinations, or sandwiches.

An analysis can be made to determine what the women and men are selecting. To do this, the waitress can be instructed to mark the checks served to women with a "W" for 1 day. These selections can be counted and compared with those of the men for that date. Such an analysis will give much information and is worth the time it takes.

With the growing tendency toward weight-watching among men as well as women, many restaurants are offering "high protein-low calorie" meals. Such meals feature broiled and roasted lean meats or those prepared without rich sauces or gravies, cottage cheese, hard-cooked egg, green vegetables, unsweetened fruits, and high-protein breads. Here is an example of such a meal which can be served at a moderate price:

Chopped steak, swiss style (baked in tomatoes and onions).

Fresh green beans.

Cottage cheese.

High protein bread or roll, one pat butter.

Black coffee or tea with lemon.

Half a grapefruit or canteloupe.

Menus should be planned at different price levels. It is well to plan menus that include a range of prices. Menus can be attractively arranged to satisfy those in several income brackets.

There should be no hidden meaning as to the total price. If the appetizer, dessert or coffee is extra, the menu should clearly show this.

Mark-ups in ink or pencil on the menu are not good from the customer-relations standpoint. Customers may wonder if the restaurant is not taking advantage of them. Unless a very large error has been made, it is better not to make the correction until a new menu is made up.

Customers like to be surprised. Customers like to be surprised and are interested when they find new dishes and new names on the menu. The same main dishes or salads or desserts become monotonous to patrons who eat in the restaurant regularly. This holds true no matter how well prepared or how attractively served the food may be.

Variety is most important in restaurants serving the same customers day after day; for those catering to a transient clientele, it has less significance.

Controlling Food Costs

To know the approximate cost of every item on the menu, you must know the approximate yield from every food ordered.

If the small operator has no time to work these out for his own operation, he can secure the information in many good books now on the market. With practice, you will find that you are able to carry many of these figures in your head. It is well, however, to set up a file with such information tabulated. A separate card may be used for each item and alphabetically arranged under the correct classification. The following will illustrate how this may be done:

Item	Quantity	Weight	Size	Price	Size of serving	Number of servings	Cost for serving
Tomatoes	1 lug	30 lb.	5x6	\$4.50	1 tomato	90	.05

Costing a recipe containing a number of items is done in a similar fashion.

Chocolate pudding

Ingredients	Amount or weight	Purchase unit cost	Total cost
Chocolate	1 lb. 2 oz.	\$0.24 lb.	\$0.27
Sugar	1 lb. 7 oz.	.07 lb.	.101
Egg yolks (frozen)	1 lb. 8 oz.	.48 lb.	.72
Egg whites (frozen)	2 lb. 4 oz.	.28 lb.	.63
Vanilla	6 tbsp.	13.45 gal.	.315

Total cost \$2.036
 Cost per serving 041

Yield: 50—2 oz. servings.

It is essential to standardize recipes and portions. Yield will be the same each time the recipe is prepared and the sales, based on a certain number of portions of definite size, can be calculated with a fair degree of accuracy.

A record of the recipe cost and portion cost along with the selling price and date of calculations is valuable information to keep on the back of the recipe card. This is a simple form; it may be developed to include all information which the manager considers essential.

No matter how well the menu planning has been done or how efficiently the purchasing, receiving, and preparation have been carried out, if serving portions are not standardized much of the effort to control costs is wasted. Portions can be regulated through the use of scales, ladles, scoops, spoons, glasses, and plates.

Recipe card

Old-Fashioned Cole Slaw

Yield: Approximately $2\frac{1}{2}$ gal.

Portion: 5 ounces

No. of portions: 50

Quantity for 50	Ingredients
$3\frac{1}{2}$ quarts (7 pounds)-----	Cooked dressing, hot.
10 pounds ($2\frac{1}{2}$ gallons)-----	Cabbage, shredded.
$1\frac{1}{2}$ tablespoons-----	Salt.

Service Instruction:

Pour hot, cooked dressing over cabbage, add salt and mix. Chill. Serve cold.

Popularity: High Medium Low

How to Price Each Item on Menu

The general method of calculating selling prices is a simple one. If the restaurant operates on a 40-percent food cost, this means that the total cost of food as purchased by the restaurant is 40 percent of sales. The meal or item that sells for a dollar has an average raw food cost of 40 cents. To maintain a 40-percent food cost, the selling price of an item or a meal should average $2\frac{1}{2}$ times the cost of the food. If the restaurant operates on a 50-percent food cost, the selling price should be twice the cost price.

The following table shows sales prices for food at 40- and 45-percent food costs:

Markup Table

Food cost per portion	Selling price per portion	
	At 45-percent food cost	At 40-percent food cost
.05	.11	.13
.06	.13	.15
.07	.16	.18
.08	.18	.20
.09	.20	.23
.10	.22	.25
.11	.24	.28
.12	.27	.30
.13	.29	.33
.14	.31	.35
.15	.33	.38

The food-cost percentage varies in different restaurants, of course, depending on the menu and the type of operation; luxury restaurants operate on a lower food-cost percentage than eating places which sell food at moderate prices (that is, the markup

on food cost is greater in the higher-price restaurants). The average restaurant aims at about 40 percent, but many with favorable locations and low overhead can operate successfully on a 45 percent food cost. Then general level of prices (and the average food-cost percentage) must be decided on the basis of the type of restaurant and the clientele.

It is not necessary that all items or meals in a restaurant be priced at the same percentage of food cost. For example, in a restaurant where the average prices are $2\frac{1}{2}$ times the food cost, soup may be priced somewhat higher than this ratio, and roast beef and steaks may be somewhat lower. The cost of preparation differs for different foods, and this may be reflected in the prices. Similarly, regular meals are priced lower, in relation to food cost, than *à la carte* items. Likewise, demand may influence the prices; some items can stand a higher percent of markup than others, depending on custom, competition, and customers' tastes. Because of the effect of price on sales volume, it may be more profitable to sell an item at 2 times the food cost than $2\frac{1}{2}$, if a sufficient increase in sales results. On the other hand, some items can be sold at 3 or 4 times the food cost without appreciably reducing the sales. The restaurant operator must consider all these factors, and attempt to adjust his prices to average his planned food cost percentage. Most restaurants round off the selling price. Thus, if a 7 cent cost is marked up to 18 cents on the basis of 40 percent food cost, the operator will charge 15 or 20 cents.

CHAPTER IX

FOOD PURCHASING

Food represents the largest expenditure in the restaurant—35 to 50 percent of the income. It is the commodity with which the business is carried on. And unless it is purchased carefully and intelligently there is little chance for financial success.

GENERAL BUYING GUIDE

What to Buy

What to buy will depend upon numerous factors of which the following are most important:

1. The menu
2. Prices
3. Geographic locations, local habits, and food tastes
4. Market supply
5. Availability of in-season and out-of-season goods
6. Storage facilities
7. Frequency of deliveries
8. Inventory of staples
9. Quantity and quality standard of the restaurant

A few of these points are summarized briefly to serve as a general buying guide.

Regarding standards. Buy by specification. Set up definite standards according to commercial terms. A specification is a statement of particulars in specific terms, for example: Peas—Extra Standard, 3-Sieve, Early June, No. 10 cans.

Regarding quantity. Buy only the amount that can be used advantageously or stored properly.

Consider the capital invested, and the rapidity of turnover desired on that capital. Many small restaurants carry little reserve stock and thus avoid tying up too much of their capital.

Buy by weight whenever possible. The terms bushel, box, bag, and crate are no guarantees as to yield on items such as spinach and leaf and boston lettuce, where loose packs are possible, or where varying amounts of foliage can be left on, as in the case of cauliflower.

Buy by count and/or size such items as citrus fruits, apples, tomatoes, melons, and head lettuce. Even then, minimum weights should be included in the specifications.

Regarding quality. Buy by grade. The grade indicates the quality at the time of grading, not the condition at the time of sale, which in the case of perishables may have altered considerably. Under these circumstances the buyer must rely on his own good judgement and experience. It is not always possible to buy by grade in the case of fresh fruits and vegetables.

Buy the quality suited to the use. For example, green peppers which are to be chopped for salad need not be as uniform as those for stuffing; a less expensive quality is satisfactory.

Purchase specials only when sure of their condition, and when the buy can be used profitably on your menu.

Make sure of the sanitary condition of the products. This is especially important in the case of milk and dairy products as well as other foods which may be carriers of disease if not handled properly.

Study the net yield obtained from the unit of purchase (bag, pound, crate, cut or can). Compare the yields from different grades. It will frequently be found that the best grade gives the greatest total yield and that the more expensive item on the basis of the unit of purchase proves the least expensive from the standpoint of cost per serving.

Regarding receiving and storing goods. Upon receipt, goods should be checked by a competent person. Checking should consist of examining the goods for quality, size, count, and weight. The vendor should be notified at once of any products which do not meet the standards specified by the purchaser.

It is important to have scales at the receiving center, so that weights can be recorded as the goods are received.

Perishable foods such as meats, eggs, dairy products, and most fresh fruits and vegetables should be stored immediately at proper temperatures.

Loss from spoilage should be kept at a minimum by proper handling and sorting.

Where to Buy

The restaurant operator may purchase food from wholesale supply houses, manufacturers, local farmers or producers, co-operative associations, municipal or farmers' markets and retail food stores.

Wholesale supply houses assemble items of many varieties and usually from numerous sources and sell them to customers.

Manufacturers may sell the food they process to wholesalers

or they may sell it directly to institutional users, or both. Such items as ice cream, and bakery products are usually sold by the manufacturers directly to the restaurant.

Some firms act as both wholesaler and manufacturer, since they purchase part of the goods they sell and produce the rest.

Local farmers, or producers, constitute a potential source of supply for fresh fruits and vegetables, and for dairy and poultry products.

Cooperative associations, in which groups of producers join together for the purpose of selling their products, are becoming a factor in the wholesale trade. For example, many creameries are composed of groups of farmers, which collect cream from members, produce butter and its allied products, and sell these in large quantities.

Municipal, or farmers' markets, where producers or hucksters sell at wholesale, are found in many cities. And peddlers or hucksters, both retail and wholesale, make their rounds in some municipalities.

Retail food stores frequently offer advantageous prices approximately the same as wholesale rates to restaurants that buy in larger-than-consumer quantities.

How to Buy

Buying may be done by dealing with the vendor at the market in person, through vendor's salesman who calls on the purchaser, by telephone, or mail. Price, quantity, quality, and time of delivery are agreed upon by purchaser and vendor. Delivery, especially of perishables, is usually made within 24 hours or the next few days; staples are frequently delivered after longer periods.

Go in person to market for perishables if it is at all practicable for you to do so. See at first hand items which are in abundance and are, therefore, being sold at favorable prices, as well as new products which are just coming into the market. Select the foods and judge the prices on the basis of the quality available.

Salesmen's visits, although time-consuming, often provide much useful information. Good salesmen know their products and are in touch with business conditions. They help to keep the buyer informed. They suggest good buys and new items. Salesmen who expect to maintain a client's business do not force purchases which would prove disadvantageous. On the contrary, they assist him to obtain supplies which he can sell profitably and to the satisfaction of his customers.

In order that salesmen may come at a time convenient for the

purchaser, it is advisable to set aside periods on one or more specific days of the week for such calls.

When ordering by telephone, you must state specific standards and depend on the reliability of the vendors. They will soon learn the desired standards and will be interested in conforming to them.

Wise operators compare prices on products of similar quality from at least two sources before placing an order. Customarily two or three vendors are asked to give prices on the items to be purchased. Some companies submit price lists for the week. A good business practice is to have an understanding that you will be notified of any changes in the prices listed.

As a general rule the dealer who offers the better price for the quality of merchandise specified gets the order. But it is not advisable to divide a small order among several supply sources, as the cost to the vendor of handling, delivering, and bookkeeping must be taken into account. Competitive buying can still be done by comparing prices and by placing the total order with different dealer on different days.

Orders for items such as milk, cream, ice cream, and bread, for which the standards and prices are more or less continuously consistent, are placed daily or by means of a standing order in which the quantity desired is subject to change.

Sources of Information

Books on quantity cooking and purchasing discuss specifications as to quality, sizes, weights, packaging, desirable storage conditions, and seasons of abundance. Some professional magazines, newspapers, and many publications of trade associations feature articles and advertisements on food.

The U. S. Department of Agriculture, publishes standards on all foods which may serve as guides for the individual buyer in establishing his own purchasing standards.

Copies of the Federal Food, Drug and Cosmetic Act as it pertains to food may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Copies of State laws concerning specifications for grading and regulations for handling certain foods may be obtained from the State departments of agriculture, health, and labor. Many cities and towns also have regulations concerning foods such as milk. Copies of these regulations will be supplied upon request. Many State agricultural colleges issue pamphlets on the products grown or produced in that State; a postal card will bring this information to the purchaser.

Some wholesale companies publish price sheets with descriptive material of goods handled. Government releases with infor-

mation on commodity food prices and other valuable information are reported daily in many newspapers. There are local trade sheets to which the buyer may subscribe to keep himself informed on the current market conditions.

Some radio programs, usually sponsored by city or State market departments, offer timely information on foods and nutrition. Market reports, which are given daily by radio from the large produce markets, stockyards, and commercial companies tell of new products and their use.

Facts to Know About Foods

A few points of general information concerning meats, poultry, fish, fruits, vegetables, and some dairy products are presented in the pages which follow. They will serve to suggest the wide knowledge required to be a good buyer and to stimulate the operator to secure this knowledge and adapt it to his particular needs.

MEATS

Grading of Meats

Since the restaurant operator spends a large percentage of his money on meats, it is important that he become familiar with the various kinds, grades, cuts, and market regulations.

Like many commodities, meats are classified and graded for convenience in buying and selling. For this purpose, specific standards have been set up. The terms used to designate the most important characteristics of beef, pork, veal, and lamb are: conformation, finish, and quality.

Conformation covers the general build, form, shape, contour or outline of the carcass, side, or cut. The most desirable cuts from loin, ribs, and round have full muscles and a large proportion of edible meat to bone.

Finish refers principally to the quality, amount, color, and distribution of fat. The best finish implies abundant marbling, (intermingling of fat with lean) and a smooth, firm, even covering of fat over the exterior surface of the carcass, side, or cut.

Quality is a measure of the palatability of the meat and is evaluated primarily by a consideration of the degree of marbling in relation to the evidences of maturity of the animal at the time of slaughter although such factors as color, texture, and firmness of the lean are also considered. Evidences of maturity are best noted by the characteristics of the bone structure.

The Federal Government conducts an official meat grading service for beef, calf, veal, lamb, and mutton based on Federal grade standards. This service is entirely voluntary.

There are eight Federal grades for beef, six for veal and calf, and five for lamb and mutton as shown in the following table.

Beef	Veal and calf	Lamb, yearling mutton and mutton
Prime.....	Prime.....	Prime.*
Choice.....	Choice.....	Choice.
Good.....	Good.....	Good.
Standard.....	Commercial.....	Utility.
Commercial.....	Utility.....	Cull.
Utility.....	Cull.....	
Cutter.....		
Canner.....		

* Mutton is not graded Prime.

Many packers have their own systems of grading and their own brand names to indicate grade. These private systems of grading are not necessarily predicated on the same premise as the Federal grade standards and therefore the brand names may or may not be consistently related to the various Federal grades.

Standard requirements for cutting and grading pork have not been established by the Government. However, wholesale cutting of pork carcasses has become fairly well standardized in the packing industry and in meat-trade channels so that a considerable degree of uniformity in making wholesale cuts is usually practiced. Furthermore, pork is of a more uniform quality than other meats.

Prices vary with the grade and kind of cut. The higher grades of beef are more tender and have a richer flavor than the lower grades. Certain cuts are also more palatable than other cuts from the same carcass. A higher price is naturally paid for the higher grades and the more desirable cuts even though there are only minor differences in their nutritive value.

Inspection stamp. The round purple *inspection* stamp differs from the grading stamp in that it does not designate quality. It shows that the animal after being slaughtered, was examined by Government inspectors and passed as wholesome food. This stamp contains the words, "U. S. Inspected and Passed." The number on the stamp is assigned by the Government to the packing house where Federal inspection is maintained.

Factors determining what restaurants should buy. Beef of all grades is not available throughout the year in many regions. Under normal conditions, "Choice" is the highest grade that is regularly available in all parts of the country during all seasons of the year.

If grades lower than "Good" are used, very special attention must be paid to their preparation.

The restaurant operator should determine through experience what quality suits his purpose best, buy by grade and cook accordingly.

Meat is usually purchased for the restaurant by the wholesale cut. The cuts desired are determined by the methods of cookery to be used.

Care after purchase. Since fresh meat is a perishable food, it must be kept under refrigeration from the time it is received until it is prepared for cooking. It should be placed in refrigerators that maintain temperatures of 32° to 35° F. Frozen meat should be stored in refrigerators with temperatures at zero or below.

Ground meat, unless frozen, should not be held more than 24 hours. Where it is necessary to hold ground meat more than 24 hours, it may be prepared for cooking and frozen. In this way it may be stored for long periods of time.

POULTRY

Chickens

Poultry should be purchased to suit the particular need for which it is intended. The use, the type of restaurant or clientele, and the price obtained for the cooked portion will influence the grade, weight and kind to be purchased. A Grade B broiler or fryer may be desirable for one type of restaurant, whereas a more expensive restaurant might serve broilers or fryers of Grade A quality. Also, a restaurant dividing chicken into 2 portions broiled or fried would require birds of 1½ pounds, but an establishment preparing fried chicken to serve by the piece would buy larger birds, perhaps 2¼ or 2½ pounds each. The restaurant manager must know first what fits into his menu and price range, and then buy to the best advantage. In order to do this, he must be familiar with the characteristics which designate quality in poultry, the Government grades and classes and the manner in which poultry is marketed.

High quality in ready-to-cook poultry is marked by the following characteristics:

1. Breast plump and well meated, legs short and thick.
2. Thigh, back and breast well covered with flesh.
3. Clean inside and out; few pin feathers; free of noticeable blemishes or defects such as torn skin, bruises, or deformities, and discolorations due to improper bleeding.
4. Skin soft and velvety.
5. Tender-meated young birds will have pliable cartilage on tip of breastbone.

Buying-Cooking Guide

Market term approximate age and sex	Characteristics	Quantity to buy, ready-to-cook, per person	Method of cooking
<i>Broiler or fryer:</i> Less than 1 pound to 3½ pounds. Young bird of either sex.	<i>Chicken—under 1 year—tender meat</i> Smooth, thin skin; tender muscles with thin connective tissue; small to noticeable amount of fat under skin over back; flexible tipped breastbone. Larger birds are meaty enough to be disjointed and cut into serving pieces.	Smaller: $\frac{1}{4}$ to $\frac{1}{2}$ bird. Larger: $\frac{3}{4}$ to 1 pound.	Broiling. Frying, roasting.
<i>Roaster:</i> Over 2½ pounds. Young bird of either sex.	Tender, soft-meated muscles; soft, pliable, smooth skin; excellent layer of fat under skin; connective tissue only slightly more developed than in broiler or fryer. Large and meaty enough to be roasted whole.	$\frac{1}{2}$ to $\frac{3}{4}$ pound.	Roasting, braising.
<i>Capon:</i> Over 4 pounds. Young male bird.	Tender-meated with soft, pliable, smooth skin; good layer of fat under the skin. <i>Chicken—usually more than 1 year—less-tender meat.</i>	$\frac{1}{2}$ to $\frac{3}{4}$ pound.	Roasting.
<i>Hen, stewing chicken fowl:</i> Over 2 pounds. Mature female.	Thick coarse skin; muscles well-developed, thick connective tissue; nonflexible breastbone; high proportion of fat under skin.	$\frac{1}{4}$ to $\frac{3}{4}$ pound.	Braising, stewing, soup-making.

Several types of poultry are raised throughout the country. Young chickens for market purposes today are primarily from strains developed for their meat type. They have medium-sized, blocky, compact bodies with short legs. They mature rapidly and are used for both egg and meat production.

Our principal supply of hens, stewing chickens, or fowl is from the mature females used in egg production, either for the shell egg market or for hatching purposes.

The new Rock-Cornish birds, which are very young, tender, but heavily breasted birds, are especially bred for quick growth. They usually weigh slightly less than one pound fully-drawn. They are used for individual servings, that is, one bird to a serving. They are exceedingly low in fat and high in protein.

Most poultry is marketed fully-drawn, that is with viscera and all other inedible parts, except bone, removed at the initial dressing plant. Thus, the restaurant can obtain its poultry completely drawn and ready for cooking. Chicken in this form may be obtained freshly chilled or hard frozen. In areas close to concentrated broiler producing centers large quantities of broilers are marketed in the freshly chilled form, packed in crushed ice in crates of one or two dozen birds per package.

When poultry is purchased as hard frozen, it should be really frozen hard when received.

The classification of dressed and ready-to-cook chickens is based on the age, weight, and sex of the birds.

U. S. standards and grades for dressed and ready-to-cook chickens have been established. They include: U. S. Grade A, Grade B, and Grade C.

Detailed descriptions of these classes and grades can be secured from the U. S. Department of Agriculture.

Turkeys

Turkeys come in many sizes. Small, very young birds about 3 months old may be split or disjointed for broiling or frying. For this purpose, the birds should be of the smaller breeds, and weigh $2\frac{1}{2}$ to 5 pounds ready-to-cook.

Depending on breed, roasting-age tender-meated young turkeys range from 9 to 24 pounds ready-to-cook for the toms, and from $5\frac{1}{2}$ to 14 pounds for the hens.

Parts of large young turkeys—half and quarter turkeys, and disjointed legs, breast pieces, wings, back—are becoming popular for restaurant use. The half or quarter turkeys may be roasted, the other parts braised or simmered. The breast meat is sometimes sliced for frying. In some parts of the country, turkey specialties—such as steaks, and boned rolled roasts—are available.

U. S. grades for whole turkeys are Grade A, Grade B, and Grade C. They are classified as fryer or roaster turkeys, young tom turkeys, young hen turkeys, tom turkeys, and hen turkeys. The young turkeys are usually under 8 months of age. The older birds are usually over 10 months of age and are more suitable for stewing or braising than for roasting.

Like chickens, turkeys and turkey products may be bought fresh-chilled or quick-frozen. Frozen turkeys should be hard-frozen when received, and should be thawed just before using. It takes a large whole bird about 2 days to thaw in the refrigerator or cold-room, the safest place to thaw these big carcasses.

Ducks

The U. S. classes for ducks are: broiler duckling or fryer duckling (usually under 8 weeks of age), roaster duckling (usually under 16 weeks of age), and mature duck or old duck (usually over 6 months of age). The U. S. grades for ducklings and ducks are Grade A, Grade B, and Grade C. Old ducks have toughened flesh and are not suitable for roasting. Ducklings average $3\frac{1}{2}$ to 5 pounds, ready-to-cook. Young ducklings are commercially produced throughout the country, although there are heavy producing areas on Long Island and in Massachusetts. They are widely available in ready-to-cook frozen form. They have soft tender flesh and are well-covered with fat.

Geese, Guinea, and Squab

These birds are used in limited quantity only. The U. S. grades for them are Grade A, Grade B, and Grade C.

Geese and guineas are classified as young and old. Young geese are usually marketed at less than 6 months old, and weigh 7 to 14 pounds, ready-to-cook. Guinea weigh 12 ounces to over $1\frac{1}{2}$ pounds, ready-to-cook (all classes). Young birds of both kinds are tender-meated.

Squabs are young, immature pigeons of either sex and are extra tender-meated. Mature pigeons have coarse skin and toughened flesh.

Amount of Poultry to Buy per Serving

The following are liberal amounts of ready-to-cook poultry to buy per serving:

Chicken		$\frac{3}{4}$ to 1 pound
Turkey		$\frac{1}{2}$ to 1 pound
Duck		$\frac{3}{4}$ to 1 pound
Goose		$\frac{3}{4}$ to 1 pound

For each pound of cooked lean chicken meat, you need to buy about $2\frac{1}{4}$ pounds of stewing chicken, ready-to-cook including giblets, skin, and neck. A quart of the coarsely chopped cooked meat weighs about $1\frac{1}{4}$ pounds.

DAIRY PRODUCTS

Eggs

Fresh eggs. The quality of eggs depends on the flavor and the exterior and interior appearance.

Eggs are graded according to their size and appearance. There

are four U. S. grades of quality: AA, A, B, and C. AA is the highest quality.

U. S. Weight Classes for Consumer Grades for Shell Eggs

Size or weight class	Minimum net weight per dozen	Minimum net weight per 30 dozen	Minimum weight for individual eggs
	(Ounces)	(Pounds)	(Ounces)
Jumbo.....	30	56	29/12
Extra large.....	27	50½	26/12
Large.....	24	45	23/12
Medium.....	21	39½	20/12
Small.....	18	34	17/12
Pee wee.....	15	28	—

Detailed descriptions of these grades may be secured from the U. S. Department of Agriculture. Size is determined by the weight; eggs of average size weigh about 24 ounces per dozen. Size does not affect the quality, but does affect the price.

It is well to remember that all grades come in all sizes, and that both the grade and the size must be stated when receiving quotations or placing an order. Remember, too, that although AA eggs are the finest quality, Grade A eggs are fine for serving individually and Grade B eggs are an economical buy for mixed dishes or baking.

The color of the shell does not affect the quality, cooking performance, or nutritive value of the egg. Such factors as shell color, the uniformity of yolk color, and proven uniformity of flavor of a brand or pack may, however, affect the price.

Eggs should be kept under refrigeration at a temperature of approximately 45° F. until used. They should be kept away from strong odors, as the porous shell is absorbent.

Frozen eggs. Eggs are marketed other than in shell form. Frozen whole eggs, and frozen egg whites and yolks can be purchased. If large quantities of eggs are used, this method of buying eggs may prove economical, particularly for baking. Frozen eggs should be held at a temperature that insures against thawing, until a few hours before use. They should then be thawed at room temperature or by placing the container in *cold* water. The container should never be placed in warm or hot water, since this would raise the temperature of the outside part of the frozen egg undesirably high before the interior was thawed.

Powdered eggs. Powdered eggs may be either whole eggs, or powdered egg whites or yolks. They are sold under the term "egg solids", or "egg white solids" or "egg yolk solids." There are

also several variations of the regular egg solids, such as the fortified whole egg containing 25 percent of extra yolk. Powdered eggs are used largely in baked products, with formulas developed especially for their use.

Milk and Cream

Dairy products, because of their high nutritive value, play an important role in a balanced diet and thus merit special notice. Careful attention must be given to storage and handling. Milk products require constant refrigeration and protection against absorbed flavors.

Only pasteurized milk and cream should be used. It is safer to buy bottled or cartoned milk for individual service unless dispensers are available. This is required by law in many towns and cities. Bulk supplies, in 5- and 10-gallon cans, may be purchased for cooking purposes or for use in dispensers.

Milk. Milk frequently appears on the market under names adopted by the local dairies. Some of these indicate the breed of cows from which the milk is taken, such as Guernsey or Jersey. Other names designate special treatments to which the milk has been subjected. For example:

Certified—produced under rigidly controlled conditions of sanitation and cleanliness according to American Association of Medical Milk Commissioners.

Pasteurized—Heated under prescribed conditions to destroy undesirable bacteria.

Homogenized—Processed to reduce fat globule size and to prevent separation of cream.

Soft curd—Treated to increase digestibility.

Vitamin D—Fortified to increase vitamin D content.

Cream. By Federal standards—

Whipping cream—Not less than 32 percent butterfat.

Coffee cream—Not less than 18 percent butterfat.

“Half and Half” is not classified as cream but as a milk and cream mixture. It normally contains 11 to 12 percent butterfat.

Butter. Butter is graded largely on flavor, with minor consideration given to body, color, salt content, and package. The overall rating is expressed as the “score”. Under practical conditions a score of 93 is considered to be excellent. Most of the market butter ranges from 90 to 93 score. The criteria used for scoring are as follows:

Score	Grade	Description
93 or above-----	AA	Fine, highly pleasing flavor, slight feed or cooked flavor permitted. Made from sweet cream only.
92-----	A	Pleasing and desirable but with slightly coarse, or storage, or definite cooked flavors; made from sweet or low acid cream.
90-----	B	May possess more definite off-flavor, such as slight neutralizer, storage, or weed flavors.
89-----	C	More definite off-flavors, such as slightly cheesy, sour, stale or definitely old cream.
88 or below-----	D*	

*Below U. S. grade requirements.

Milk and Cream Derivatives

Sour cream is a cultured cream product used largely as a dressing on salads and special appetizers. Because it is a cream product it must contain at least 18 percent butterfat.

Buttermilk or cultured buttermilk is a product of low fat content. It is made from skimmed milk and contains all of the nutritious solids except the fat. It may have churned fat added as in "Golden Churn" buttermilk.

Skimmilk is whole milk with only the fat removed. It has many uses in cooking where skimmilk will improve the dish when used in place of the water called for in a recipe.

Nonfat dry milk is skimmilk with the water removed and can be used in many recipes for improving the texture and color of the food. It may be blended in dry form in many recipes and is easily reconstituted into liquid form for use as skimmilk.

Evaporated milk is concentrated whole milk with only part of the water removed. It is a sterilized product and keeps well for long periods. It is used widely in baking and in baked dishes.

Ice cream. Ice cream standards are set by law in most States and usually require a butterfat content of at least 10 percent and a specific minimum weight. The average weight for a satisfactory product is approximately 5 pounds per gallon.

Cheese

There are about 18 different cheese types to which more than 400 different names have been applied. The American or Cheddar cheese makes up the bulk of the cheese used for all purposes in this country. Cheddar is representative of the hard cheese class. It appears on the market in a number of shapes and sizes. The

Federal Government has set up specifications for two grades of Cheddar cheese. These are based on the flavor, color, texture, finish, and body of the product.

The classification of cheese may be given as follows:

<i>Hard</i>	{ Without gas holes, Cheddar
	{ With gas holes, Swiss
<i>Semisoft</i>	{ Ripened by molds, Roquefort
	{ Ripened by bacteria, Brick
<i>Soft</i>	{ Ripened by bacteria, Limburger
	{ Ripened by mold, Camembert
	{ Unripened cheese, Cottage

Process cheese is made from a combination of cheeses of varying stages of ripeness. The mixture is melted, pasteurized, homogenized and subsequently molded. Process cheese melts more readily when incorporated in cooked dishes because of the emulsifying agents added and the processing used in manufacture.

There are three kinds of Process cheese available; Process cheese, Process cheese food and Process cheese spread. These products differ largely in moisture and fat content.

They may contain one or more cheeses from the same variety or of two or more varieties. Emulsifying agents and flavoring materials are permitted in the processing formula.

Process cheese is limited to 41 percent moisture. The fat in the solids must be at least 49 percent.

Process cheese foods are made in the same way as Process cheese but with higher moisture permitted. Moisture content is limited to 44 percent and fat to not less than 23 percent plain or 22 percent when fruits, vegetables or meats are added.

Process cheese spread must be spreadable at 70° F and may contain more moisture (44 to 60 percent). Fat content must not be less than 20 percent. Fruits, vegetables or meats may be added.

FISH AND SHELLFISH

Fish and shellfish deserve a prominent place on the menu. They provide a variety of attractive, palatable, and popular items for the menu and are valuable food from a nutritious standpoint.

The buyer should familiarize himself with the characteristics of good quality fish and shellfish and should beware of bargains unless absolutely certain of what he is getting. He should deal only with firms that enlist confidence by delivery of fishery products of the highest quality.

Market Forms of Fish

Fresh and frozen fish may be bought in a variety of cuts, the

more important of which are shown here. Knowing the cuts and their particular uses is important in buying. The edible portion varies with the type of cut, from 100 percent for fillets to about 45 percent for whole fish.



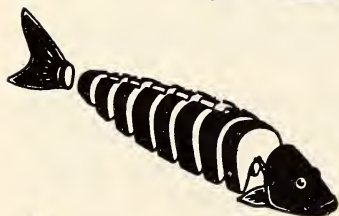
Whole or round fish are those marketed just as they come from the water. In this form, the edible portion is about 45 percent of the whole, but varies with size and kind of fish.



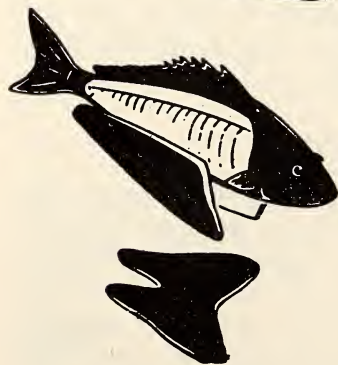
Drawn fish are those marketed with only the entrails removed. In this form, the edible portion is about 48 percent, but varies with size and kind of fish.



Dressed fish are scaled and eviscerated, usually with the head, tail, and fins removed. Edible portion in this form is about 67 percent, but varies with size and kind of fish. The smaller sizes are ready for cooking as purchased (pan dressed). The larger sizes may be baked as purchased or may be cut into fillets, steaks, or chunks.



Steaks are cross-section slices of the larger sizes of dressed fish, usually about $\frac{3}{4}$ of an inch thick. In this form the edible portion is about 84 percent. Steaks are ready to cook as purchased.



Fillets are the sides of fish cut away from the backbone. They are practically boneless and have little or no waste. Fillets are ready for cooking. The skin may be left on or may be removed. A fillet cut from one side of a fish is called a single fillet. This is the type most generally seen in the market.

Butterfly fillets are the two sides of the fish corresponding to two single fillets held together by the uncut flesh and skin of the belly.

Buying Fresh Fish

Most varieties of fish are more abundant in some months than in others. Local fish dealers can usually give information about seasonal offerings, and indicate the varieties that can be obtained at

the best price advantage. Lesser-known species often may be as satisfactory as better-known, and higher-priced, species.

Tests for whole and drawn fish. Fresh fish have the following characteristics:

1. *Flesh*: Firm, elastic flesh, not separating from the bones, indicates that fish are fresh and have been handled carefully.

2. *Odor*: Fresh and mild. A fish just taken from the water has practically no "fishy" odor. The fishy odor becomes more pronounced with passage of time, but it should not be disagreeably strong when the fish are bought.

3. *Eyes*: Bright, clear, and full. The eyes of fresh fish are bright and transparent; as the fish become stale, the eyes become cloudy, and often turn pink. When fish are fresh the eyes often protrude, but with increasing staleness they tend to become sunken.

4. *Gills*: Red, and free from slime. The color gradually fades with age to a light pink, then gray, and finally brownish or greenish.

5. *Skin*: Shiny, with color unfaded. When first taken from the water, most fish have an iridescent appearance. Each species has its characteristic markings and colors which fade and become less pronounced as the fish loses freshness.

Tests for fillets and steaks. Fresh fillets and steaks have the following characteristics:

1. *Flesh*: Fresh-cut in appearance; the color should resemble that of freshly dressed fish. It should be firm in texture, without traces of browning about the edges and without a dried-out look.

2. *Odor*: Fresh and mild.

3. *Wrapping*: If the fillets or steaks are wrapped, the wrapping should be of moisture-vapor-proof material. There should be little or no air space between the fish and the wrapping.

Buying Frozen Fish

Frozen varieties are usually packed during seasons of abundance at reasonable prices, and now are available the year around in practically all sections of the country. Since frozen fish are the equal of fresh fish in appearance, flavor, and food value, the two forms may be used interchangeably.

Tests for frozen fish. Frozen fish of good quality have the following characteristics:

1. *Flesh*: Should be solidly frozen when bought. Virtually all deterioration in quality is prevented when fish is properly held in the frozen state. Unless care is taken, frozen fish thawed and re-frozen is poorer in quality. There should be no discoloration, or brownish tinge in the flesh.

2. *Odor*: Frozen fish should have little or no odor. A strong fishy odor means poor quality.

3. *Wrapping*: Most frozen fillets and steaks are wrapped either individually or in packages of various weights. The wrapping should be of moisture-vapor-proof material. There should be little or no air space between the fish and the wrapping.

4. *Glazing*: Whole fish frozen in the round or dressed forms are usually not wrapped, but covered with a glaze of ice to protect them from drying out, or from "freezer burn." This glaze should be on these forms of frozen fish when bought.

How much to buy. Servings of fish are generally based on one-third to one-half pound of the edible part for each person. To provide this much edible fish for each person, the approximate amounts to buy of the different forms are as follows:

	<i>Pounds per person</i>	<i>Pounds per 100 persons</i>
Fillets, steaks, or sticks	$\frac{1}{3}$	30
Dressed fish	$\frac{1}{2}$	45
Whole or round fish	1	90

Handling and Storing

Fish, a perishable commodity, should be kept under refrigeration at all times. Only in this way can the quality of fresh or frozen fish be maintained.

Fresh fish should be kept constantly below 40° F., and preferably at 31° or 32° F. to ensure maximum storage life. Ice is the best preservative yet devised for keeping fresh fish, since it not only holds the temperature but also keeps the surface of the fish moist and in good condition.

Shipments of fresh fish should be examined immediately upon receipt for signs of spoilage and body damage. They should be packed in ice for delivery, and should be well iced when received. Finely crushed ice is preferable to large pieces to avoid bruising. Fish packed in orderly arrangement hold their natural shape longer and better. Rough handling should be avoided, since bruises and punctures of the flesh induce and hasten breakdown in quality.

Frozen fish should be kept solidly frozen until ready for use. Do not refreeze fish that have been thawed. Maximum storage life can be obtained by maintaining a temperature of 0° F. or below, and by providing adequate moisture-vapor-proof wrapping or glazing. In commercial practice, frozen whole fish, and sometimes dressed fish, are coated with a layer of ice by dipping in cold water after freezing. If fish are placed directly in the refrigerated space without suitable protective treatment, undesirable changes will take place during cold storage: a gradual loss of moisture will occur

until the fish are shrunken and dried; this dehydration not only causes an unsightly appearance and alteration in texture, but also results in loss in weight and flavor.

Buying Shellfish

Shellfish are sold in many different forms. Market forms of some of the most important species are described here.

Crabs and Lobsters. When bought alive, crabs, lobsters, and spiny lobsters should show movement of the legs. The "tail" of live lobsters curls under the body and does not hang down when the lobster is picked up.

Frozen spiny-lobster or rock-lobster tails, should have meat of clear whitish color. There are several kinds on the market. Those from Florida, Cuba, and the Bahamas have a smooth, brownish-green shell, with white spots; those from South Africa, Australia, and New Zealand have a rough shell with the color varying from dark maroon to brown; those from Southern California and the west coast of Mexico are smooth and yellow green. As is true with other frozen fish and shellfish, frozen lobster tails should be hard-frozen when bought and should have no odor.

Crabs and lobsters, cooked, should be bright red and should have no disagreeable odor. By lifting slightly the lid under the body section of crabs or lobsters it is possible to smell any strong, disagreeable odor very easily.

Cooked crab meat is marketed from four varieties of crabs:

Blue crabs: The meat from blue crabs is packed as—

Lump meat—whole lumps of white meat from the large body muscles that operate the swimming legs.

Flake meat—small pieces of white meat from the body.

Flake and lump—a combination of the first two kinds.

Claw meat—brownish-tinted meat from the claws.

Rock crabs: Crab meat from the New England rock crab is marketed in only one grade, and is brownish in color.

Dungeness crabs: Crab meat from the Dungeness crabs of the Pacific coast includes that from both the body and the claws. The claw, or leg, meat is reddish; the body meat is white.

King crabs: Crab meat from the king crabs of Alaska is taken mostly from the legs, then frozen and packed. The entire leg sections, cooked and frozen, are also marketed.

Soft crabs are Atlantic-coast blue crabs that have shed their old, hard shells. They should be alive when bought fresh. They are also obtainable frozen.

Clams and Oysters. Clams and oysters in the shell should be alive—the shells should close tight when tapped gently.

Shucked oysters should be plump and should have a natural creamy color with clear liquid. If in the original package or can, there should be not more than 10 percent of liquid (by weight). Oysters with an excess amount of liquor should be avoided, as this indicates that they have been improperly handled. Excessive water results in bloating of the oyster meat, and partial loss of flavor and food value. For purchasers who use a chemical test for freshness, the pH should be at least 6.0.

Oysters are sold on a size basis. The price differential between the various sizes does not reflect their quality.

Clams in the Shell.

Hard- and soft-shell clams are graded according to size.

<i>Size</i>	<i>Number of clams per bushel</i>
Hard-shell clams	
Chowder, large	100-150
Chowder, medium	150-225
Cherrystone	225-350
Littleneck	350-650
Soft-shell clams	
Large	400-600
Steamers	600-800

Oysters.

Shucked eastern oysters are generally packed in the following commercial grades:

<i>Grade</i>	<i>Oysters per gallon</i>
Counts or extra large	Not more than 160.
Extra selects or large	Not more than 161 to 210.
Selects or medium	Not more than 211 to 300.
Standards or small	Not more than 301 to 500.
Very small	Over 500.

Shucked Pacific oysters are generally packed in the following commercial grades:

<i>Grade</i>	<i>Number per gallon</i>
A	40-64
B	65-80
C	81-96
D	97-120
E	121-144
F	Over 144

Scallops. Scallop meats consists of only the muscle that closes the shell of the sea scallop or the bay scallop. The meat of the large sea scallop is white; the meat of the smaller bay scallop is creamy white, light tan, or pinkish. Fresh scallops, and frozen scallops, when thawed, should have a sweetish odor. When bought in packages, they should be practically free of liquid.

Shrimp. Shrimp are sold as follows:

Fresh, whole (heads on)—mainly around New Orleans and near production points.

Fresh or frozen, ~~hea~~ headless, but with shells on.

Fresh or frozen ~~cooked~~, generally peeled (shells removed) and deveined.

Frozen, peeled, ~~deveined~~ shrimp.

Frozen, breaded with a coating of crumbs or cornmeal after being peeled and deveined.

Fresh shrimp have a mild odor, and the meat is firm in texture. The color of the shell may be grayish green, pinkish tan, or light pink. When cooked, the shells turn red, and the meat takes on a similar attractive reddish tint, with possibly some dark-red spots. When shrimp are sold as "green shrimp," this does not refer to the color or species, but is a term used in the trade to describe shrimp that have not been cooked. Shrimp are usually sold on a size basis, with the larger sizes bringing the higher prices.

Handling and Storing of Shellfish

Live. Live crabs, lobsters, clams and oysters should be kept in a moist cold atmosphere at approximately 45° F. The crabs and lobsters should be unpacked from the original containers, sorted, and spread out so that they will be kept moist and cold. Oysters and clams are sometimes left in the baskets and kept cold by sprinkling cracked ice cross the tops of the baskets from time to time.

Prepared. Scallops, shrimps, crabmeat, lobster meat, shucked clams and oysters should be kept at a temperature close to 32° F., but not to the point where they will freeze.

Frozen. Frozen shellfish should receive the same care as that given frozen fish. Thawing methods for frozen shellfish are the same as those for frozen fish.

FRUITS AND VEGETABLES

Fresh

Buying. Customer satisfaction with fresh fruits and vegetables depends to a considerable extent on the restaurant buyer's know-how in procuring produce. He should have quite a detailed knowledge about fresh commodities and put it to use by being specific in his orders. For example, instead of asking for a "crate of good lettuce" he might ask for a "carton of 2½ dozen size U. S. No. 1" lettuce of a certain type or variety and from a certain area. The more specific the buyer is as to what he wants and what he will accept, the less opportunity there is for misunderstanding.

Keeping posted on fresh fruits and vegetables is a problem, because there are 102 distinct kinds and many varieties of each on

the U. S. market during the year, and they come from all parts of the country and from foreign countries. It is therefore desirable for a restaurant buyer to maintain close relations with a specialized supplier. In this way he can be informed on what is available and quality and price.

Considerations in selecting fresh produce are:

1. Use. The buyer should always buy with the use of the product in mind. He should distinguish between blemishes that affect only the appearance and those that affect eating quality. Items that are to be cut up and cooked need not have the same perfection of shape as those that are to be served in their original form.

2. Supply. In general the quality is best and the price lowest when a fresh fruit or vegetable is in large supply. The buyer can check on the crop situation. Monthly reports on most principal fruit and vegetable crops are available from the U. S. Department of Agriculture.

3. Grades. Standards have been set by the U. S. Department of Agriculture for all the principal fresh fruits and vegetables as well as for many minor commodities. These standards cover such points as maturity, defects, disease, color, shape, texture, varietal characteristics, size, count, trim, pack, juice content, damage and permissible variation from grade specifications. The buyer should have a set of grade standards so he will know what each grade means. U. S. No. 1, for example, has many meanings. In each case, its exact meaning is specified in the U. S. standard for the particular commodity. You can obtain a set of the fresh fruit and vegetable standards, without charge, by writing to Chief, Fresh Products Standardization and Inspection Branch, Agricultural Marketing Service, Washington 25, D. C.

Typical grade names are U. S. Extra Fancy, U. S. Fancy, U. S. Extra No. 1, U. S. No. 1, U. S. Combination, U. S. Commercial, U. S. No. 2 and U. S. No. 3. The term "unclassified" means ungraded

4. Brands. Fresh fruits and vegetables packed under some labels are consistently good. Buyers, therefore, should consider brand labels as well as grades.

5. Condition. In buying, always check on condition as well as grade. "Condition" refers to the present state of the commodity, while "grade" refers to the specifications the product met at the time it was packed. A package graded U. S. Extra Fancy at shipping point could be so damaged en route as to be far below that grade when received.

To be in good condition, fruit or vegetables should be fresh, reasonably free from bruises, cuts and punctures, reasonably clean, not overripe, and free from decay or insects.

6. Maturity. Some fruits, if picked immature, never ripen properly. Peaches and cantaloupes are examples of this type of fruit. On the other hand, some fruits are best when picked unripe (but mature) for later controlled ripening. Bananas and pears are an example of such fruits. The buyer should post himself about how the various fruits ripen.

7. Area of production. Consider the area in which the products are grown. This is important because some regions grow distinctly different types of the same commodity than others. A commodity from one region may be better for a certain use than the same item from another area. Suppliers will be able to point out what are the best growing areas for each product.

8. Containers. There are innumerable sizes and shapes of containers. The word "crate" or "lug" or "carton" or "flat" conveys no meaning as to cubical content or net weight of contents, unless you know exactly what size container is meant. Full measure is important, so you should reach an understanding, when buying, as to what the container holds. Also, in buying unknown brands, watch for loose packs, short packs and packs that are of one quality at the top and another at the bottom. Use special care in buying ungraded merchandise. If possible, weigh everything.

9. Sizes. Check on size of fruits and vegetables. Order the sizes that match your requirements, depending on how the items are to be used. Sometimes it will be found that small sizes are cheaper and may serve as well as the larger fruits or vegetables. Extremely large sizes also often are cheaper and may offer an opportunity for savings if the items are to be cut up anyway. However, oversize fruits and vegetables sometimes are coarse in texture.

10. Quality. All the complex factors of grade, condition, maturity, area of production, variety, size, container and the buyer's preferences enter into his appraisal of a commodity's quality. He has to balance quality and price.

Price. Obviously price is important, but the buyer needs to consider whether there is a net saving in a great deal of "shopping around". Such shopping is time consuming and therefore costly. Also, it intereferes with establishment of close and satisfactory relations with suppliers. When a buyer scatters his purchases among so many suppliers that each order is small, he makes it impossible for the supplier to make a profit. Hence the supplier is likely to lose interest in giving good service. Another factor is that many small purchases, supposedly made to save money, run up the restaurant man's own cost of doing business by increasing the number of deliveries he must receive and increasing his record keeping.

Care and Storage. Once fruits and vegetables have been purchased and delivered, their quality should be maintained by careful handling and suitable storage. Packages should not be dropped or thrown. They should never be stacked next to hot radiators or in areas where they can freeze. Stacks should be kept to moderate height to avoid crushing the bottom layers. Attention should be given to placement in whatever storage area is used so that oldest stock is used first. Each package or bag should be dated as received (a grease pencil is good for this purpose).

Most fresh produce needs low temperature and high humidity and all need ventilation. Outstanding exceptions to the low temperature rule are bananas and sweetpotatoes, which should be stored at room temperature. White potatoes generally need only dry common storage unless the storage period is lengthy. Tomatoes should not be held at lower than 50° F. For ripening, temperatures of 60° to 70° are best.

Much produce is highly perishable, and is soon damaged either by high temperature or dryness, which causes withering and toughening.

Canned

To purchase canned goods to the best advantage, it is essential to know the grades, types, counts and sizes that are available, and the manner by which the manufacturer labels his product. The purchaser must then decide what best suits his particular use.

Grading and labeling. There are three methods of package labeling:

A. U. S. Government grades. These are determined by a scoring system based on assigned values, under constant supervision of the Agricultural Marketing Service. For this supervision and inspection service the manufacturer pays the Government a fee.

The U. S. Government grades for canned fruits are:

- U. S. Grade A or U. S. Francy
- U. S. Grade B or U. S. Choice
- U. S. Grade C or U. S. Standard

The U. S. Government grades for canned vegetables are:

- U. S. Grade A or U. S. Francy
- U. S. Grade B or U. S. Extra Standard
- U. S. Grade C or U. S. Standard

For both canned fruits and vegetables there is a Government substandard grade which is labeled "Below Standard in Quality—Good Food Not High Grade."

The following three Government grades of canned fruit fall within the designation of substandard.

1. U. S. Grade D—seconds in sweetened water. Used mostly for pies.
2. U. S. Grade E—water packed fruit. Used mostly for pies.
3. U. S. Grade F—preheated solid pack pie fruit.

B. Grading by manufacturers: A canner may grade his own fruits and vegetables, using quality control methods he has set up for his own use. If he uses the terms "Grade A", "Grade B", or "Grade C", the manufacturer is responsible for meeting the requirements of the grade.

C. Descriptive labeling: This is generally described as "brand" labeling. Many manufacturers use this method, having several brand names for their products. One of these is used for the highest quality canned foods, another for the second line, and so forth. A food descriptive label must contain the following information:

1. Name of product.
2. Name and address of manufacturer, packer or distributor.
3. Net contents.
4. When significant, as in the case of canned fruits and vegetables, the following information is required:
 - (a) Variety (for example, white or yellow corn).
 - (b) Style of pack (whole, halves, diced, etc.).
 - (c) Packing medium (if optional media are permitted).
5. Statements of dietary properties, if special dietary uses are claimed.
6. Statement of artificial coloring, flavoring or chemical preservatives, if used.
7. If below basic standard of quality or below standard of fill of container set by Food and Drug Administration, must so state in prescribed legal manner.
8. All words, statements and other information required by law must appear in the English language.
9. Ingredients (many foods, such as canned peas, mayonnaise, and margarine, for which the Government has set standards of identity, do not require a declaration of all ingredient).

It may also contain additional information, such as a reproduced up-to-date picture of the product, detail about quantity, directions for use, etc.

Ordering. Before placing an order of any considerable size, samples should be tested to determine the drained weight, size, count, color, flavor, and other qualities of comparable products.

It is important when considering the grade to take into account that, in grading, an allowance is made for a certain degree of tolerance within each grade. For that reason, the lowest scoring of a higher grade of the canned product might be almost equivalent to the highest scoring of the next lower grade.

Since so many factors enter into the buying of canned goods, it is impossible to buy efficiently without defining specific standards which conform with commercial terms. Furthermore, unless this is done, dealers are unable to quote prices on comparative products. When the product is received, the purchaser must make sure that the product delivered conforms with the standards requested.

A complete description of the standards required for canned goods should include the information that is appropriate for the product.

Complete descriptions are listed below.

1. *Grade.* Fancy, choice, extra standard, or standard.
2. *Style.* Whole, halves, peeled, unpeeled, cut, diced, sliced, shoe-string, cream-style, or whole-grain style.

3. *Type.* This differentiates between the various varieties of a commodity, as early or sweet (or sugar) peas, sweet or sour cherries, cling- or free-stone peaches.

4. *Size and kind of container.* No. 303, No. 2, No 2½, No 3, No. 10 cans; in cans, plain or enamel-lined; glass containers, types of packages; paper containers, or wooden boxes.

5. *Drained weight.* The minimum drained weight is specified if the commodity is packed in either sirup, water, or brine.

6. *Count or size.* The range of size is specified where count is important in relation to use and cost, as in peaches or pears. Some commodities are sold by size. For example, the size of peas, mushrooms, and lima beans should be specified.

Packing medium. The medium according to use is specified. Medium for packing fruits ranges from water to extra-heavy sirup.

Typical specifications are:

No. 10 peas. *Extra Standard*, 3-sieve, Early June.

No. 10 apricots. *Choice* (geographic production areas), 85/96, unpeeled halves in 40° sirup, minimum drained weight 66 ounces.

No. 10 peaches, choice, yellow cling, 30/35 count, halves, heavy sirup, minimum drained weight 68 ounces.

The sizes of cans commonly used in restaurants are:

Size	Approx. Net Content	Ratio Equivalent
No. 303	16 to 17 oz	7 No. 303 cans = approx. one No. 10
No. 2	1 lb. 4 oz. or 1 pt. 2 fl. oz.	5 No. 2 cans = approx. one No. 10
No. 2½	1 lb. 13 oz.	4 No. 2½ cans = approx. one No. 10
No. 3 Cyl.	3 lbs. 2 oz. or 1 qt. 14 fl. oz.	2 No. 3 Cyl. cans = approx. one No. 10
No. 10	6 lbs. 2 oz. to 6 lbs. 12 oz.	

There are other sizes of cans and jars. The content is stated on the label in net weight or fluid measure. Because of the difference in the density of foods the net weight of one product may be different from that of another product packed in the same size can or

jar. An example would be pork and beans (1 lb.) and blueberries (14 oz.) in the same size can.

Storage. Canned foods should be stored in a cool, dry room on shelves or on racks off the floor.

Frozen Foods

Modern food technology and engineering have brought the preservation of foods by freezing to a point where it is one of the two important means of food preservation in this country. Meat, fish and poultry frozen in ready-to-cook portions are distributed throughout the country. A substantial proportion of all fruits and vegetables which are preserved in any way are now frozen and available in institutional size packages throughout the year. Frozen foods compare favorably in food value with fresh foods.

Frozen foods can contribute many advantages to the managing of public feeding establishments, including: (a) reduction of kitchen labor costs, (b) saving of time and space, (c) uniformity of quality of raw foods, (d) better project inventory and portion control, and (e) satisfied patrons—more business and better profits. One product which came into the market in a minor way in 1954 and which rapidly grew into a tremendous operation was a partially cooked potato cut for deep frying and then frozen. Before the end of 1955 the use of this product by restaurants amounted to several million pounds per year.

A survey made in 1954 indicated use of frozen foods by most restaurants of 10 vegetables, 8 fruits, and a large variety of fish, poultry and meat items. The order of preference of vegetables shown at that time was:

1. Green peas, 2. lima beans, 3. corn, 4. broccoli, 5. green string beans, 6. spinach, 7. asparagus, 8. brussels sprouts, 9. cauliflower, 10. carrots. The use of frozen fruits was: 1. red sour cherries (for making pie), 2. strawberries, 3. peaches, 4. rhubarb, 5. raspberries, 6. blackberries, 7. pineapples, 8. apricots.

The use of frozen cooked foods has continued to grow and many restaurants now freeze some of their own specialty items for sale over the counter to carry-out patrons, while some of the larger restaurants have entered into a factory type operation for the production and sale of their specialties through supermarkets, grocery stores, etc. One very large restaurant company cooks and freezes a complete line of 10 soups, 6 fish dishes, 50 meat entrees, 15 poultry items, all vegetables (including mashed potatoes), 7 sauces, 20 desserts, and many specialties, such as spaghetti, waffles, welsh rarebit, and assorted sandwiches. The

distribution of frozen bakery products prepared by restaurants and bakeries has also reached enormous proportions.

The use of frozen raw and cooked foods will become increasingly important in the competitive public feeding establishment of tomorrow. Such service carries with it many advantages to the alert restaurant operator, such as reduction of labor costs through increased output per man hour, adequate stocks of a wide variety of products ready for prompt service, storage of adequate stocks without fear of loss or deterioration from normal storage, continued uniformity of high quality, economy of space, and perfect inventory and portion control.

The procurement of frozen foods for restaurant use should be made in quantity only when adequate zero storage is available in the restaurant. All frozen foods should be held at zero temperature until needed for use. Once frozen foods are defrosted they should be used, because refreezing has a pronounced adverse effect upon quality.

MISCELLANEOUS STAPLES

General Buying Guide

Under the term "miscellaneous staples" come numerous foods used daily in restaurant. Only a small number will be touched upon in this section, but a few general rules will guide the buyer.

While many foods are bought in bulk, many others are purchased packaged. It is very important for the buyer to know the labels on all goods, particularly packaged items.

Labels must conform with the Federal Food, Drug and Cosmetic Act if they cross State lines, and with State regulations. It is essential that they state the truth about the product. Most labels give the following information:

1. The name of the food and its conformity in kind and quality to the legal standard if one has been set. If the product does not have the qualities legally required, the manufacturer must give it a distinctive name. He must then print on the label a list of the ingredients in the order of their importance.
2. The quantity—weight, measure or count—in the package.
3. The addition of artificial coloring or flavoring.
4. The addition of certain preservatives other than condiments.
5. Whether the product is a mixture or a blend, for example, whether sirup is pure maple or a blend of maple and cane.
6. Whether the product is an imitation, as when a flavoring

is "imitation" vanilla. In such a case the principal ingredients must be listed.

7. Market terms descriptive of the product, such as tarragon vinegar.
8. A brand name by which the product can be easily identified.

Coffee

Probably no item on the restaurant menu is as important to the majority of customers as coffee, and most operators strive to serve the best possible cup of coffee. Many factors in the selection enter into the achievement of this goal.

Ordinarily coffee is imported from about 35 sources but, at the present time, most of the coffee imported into the United States comes from South America—principally from Brazil. The Brazilian coffees include Rio, Santos, and Bourbon Santos. What are known as "milds" come from Colombia. Another South American coffee is Bogota, the better grades of which have an excellent flavor.

Coffee beans from different sources contribute different qualities to the brew. Most coffee, therefore, as purchased by the operator, is a blend of from several to 15 varieties. The coffee merchant usually keeps secret his blend formulas as well as the length of time of roasting, which together give the product its distinctive flavor.

Green coffees are roasted to develop flavor. The roasts are classified according to color: (a) light, a cinnamon brown color; (b) medium, a deep chestnut, the roast most used in the United States, and (c) dark, popular in the South.

In choosing a blend, it is advisable to profit by the salesman's experience. Before he can suggest the best coffee for your particular operation, he will want to know the type of coffee equipment used, the degree of hardness of the water in the locality, and whether the restaurant caters to men who like a heavy cup of coffee or to women who prefer a lighter one.

Blind tests should be made on a variety of blends before a definite choice is made. Similar tests should be made from time to time to check on the standard and quality.

Coffee is bought in the bean or ground. A few restaurants purchase coffee in the bean and grind it fresh as required.

Coffee is steel-cut to the degree of fineness or grind best suited to the method of preparation. In general, restaurants use an "urn" grind. This is somewhat finer than the drip grind designed

for home use but is well adapted to drip devices or leachers used in most urns. A finer grind is sometimes recommended for vacuum type coffee makers but most manufacturers now consider the urn grind satisfactory even for this method of preparation.

The flavor quality of coffee begins to deteriorate immediately after roasting and the change is significantly noticeable after a few days. The change takes place even more rapidly after the roasted beans have been ground. For this reason, coffee should be used as soon after roasting and grinding as possible. Daily deliveries are ideal but semi-weekly deliveries will prove satisfactory provided there is no time lapse between roasting and delivery. Stocks on hand should be kept in the coolest spot in the establishment.

Tea

Teas are black, oolong, or green. The principal type of tea now available in the United States is black tea. Black tea leaves are withered and completely fermented, then rolled and dried. Oolong tea leaves are only partially fermented. Green tea leaves are not fermented at all.

Tea is classified according to the size of the leaf used. The more tender leaves are at the tip of the branches and have a delicate flavor. They are used in the higher grades.

Pekoe, Orange Pekoe, and English Breakfast are trade names for blended black teas. These names do not designate quality unless definite types of high-grade teas, including Darjeeling, are specified on the package.

Tea may be purchased in chests of irregular sizes, weighing 90–135 pounds. It is more frequently bought in individual bags running 150–250 to the pound, and in 1-ounce bags for making iced tea.

Tea deteriorates on storage but not nearly as rapidly as roasted coffee. Tea also tends to pick up flavors and odors from substances stored near it. It is advisable to buy supplies sufficient for short periods of time. Tea should be stored in air-tight containers and never opened or allowed to remain open in the presence of odoriferous substances.

Chocolate and Cocoa

Both chocolate and cocoa are obtained from the cacao beans of the cacao tree. The product obtained by grinding the roasted cacao bean is known as chocolate. It contains more than 50 percent of a high quality fat called cacao butter. When an appreciable

quantity of the fat is removed from chocolate the remaining product is known as cocoa.

Wholesale packages of cocoa may be purchased in packages from 5 pounds to 200-pound barrels.

Chocolate may be purchased in paper encased bars of 1 pound each, packed 12 to the box or in slabs of 10 pounds each.

Storage. Both cocoa and chocolate should be stored in a dry, cool place. Cocoa tends to lump if stored in a moist atmosphere or at high temperature. When chocolate is stored at high temperature, some of the cocoa butter softens and forms a grayish film on the outside of the chocolate; this makes the product appear stale but the flavor may not be impaired.

Cereal and Cereal Products

Flour. Flour is one of the most important cereals purchased by the restaurant. Since wheat flours are differentiated on the basis of the variety of wheat from which they are made, the use usually designates the type of flour to be purchased.

"Bread flour," generally made from hard wheat, is a "strong" flour with the capacity to make loaves of good volume and texture. This flour is usually more granular than pastry or cake flour.

"Pastry flour," generally made from soft wheats, has a low or moderate amount of gluten-making properties and is of fine granulation.

"Cake flour" is milled from soft wheat and highly refined. It is usually of better grade than pastry flours.

"All-purpose flour" is a flour suitable for most kinds of baking. It may or may not be a blended flour.

The enrichment of flour by the addition of riboflavin, thiamin, niacin, and iron adds appreciably to the nutritive value. It is highly desirable that the manager purchase enriched flour for all cooking purposes. Enrichment of white flour and white bread is required by statute in 27 States; elsewhere this is on a voluntary basis.

Flour for institutional use is purchased in 100-pound bags.

Macaroni, spaghetti, noodles and vermicelli. These are made of water and either semolina—middlings from hard durum wheat—or farina—or both. The names of these pastes are usually determined by their shapes, with the exception of egg noodles, which according to Government standards must have not less than 5.5 percent egg in the finished product.

For institutional use these dried pastes come in boxes of 10, 20, and 25 pounds.

Breakfast cereals. Breakfast cereals are classified as uncooked, such as farina; ready-to-serve, such as corn flakes; and semicooked or steam cooked, such as rolled oats. Some of the partially cooked cereals require only a few minutes additional cooking.

Cereals that require cooking are popular and can be served at a lower cost per serving than the ready-to-serve cereals. They are usually bought in bulk in sacks of 25, 50, or 100 pounds.

A large variety of ready-to-serve cereals are on the market. Many of these breakfast foods have names which are trademarked and refer only to the product of a particular firm.

Ready-to-serve cereals are purchased by the carton in individual or large-sized packages. Individual packages usually contain 50 to 200 to the carton; large-sized packages, 12 to the carton or in multiples of dozen lots.

Rice. Whole rice is graded on the proportion of whole kernels, the extent to which kernels are broken, cleanliness, color and freedom from a mixture of varieties.

Rice can be purchased white (polished), unpolished (or undermilled) or as brown rice. Wild rice is not a true rice.

Rice is classified as long or head, medium, and short grain. Honduras and Fortuna are two of the best known varieties of the long or head rice. Blue rose is medium-grained and one of the most popular varieties in this classification.

Storage of cereals. Flour and other cereals should be stored off the floor, and at temperatures below 70° F. A screened compartment is preferable for flour and all cereals stored in bags.

Fats and Oils

Vegetable oils most commonly used in food preparation, salad or table oils, are corn, cottonseed, peanut, and soybean. Olive oil is one of the most desirable but the price is higher. Oils are usually purchased for institutional use in 5-gallon tins.

Lard is pork fat derived from rendering certain selected fatty tissues of pork. Careful handling and preparation of the product and the addition of antioxidants makes possible the production of a high quality, very stable product. Leaf lard, which is produced from leaf fat (fat surrounding the kidneys) is generally considered to be the best quality of lard. However, the leaf fat is frequently included together with other fats used in making conventionally available lard. Firmness of lard is frequently increased by the addition of hydrogenated lard flakes.

Shortenings are usually made from vegetable fats or oils, or from mixtures of vegetable and animal fats or oils. Shortenings

are usually subjected to various processes and degrees of hardening (hydrogenation), deodorizing, decolorizing, plasticising, etc., to meet certain trade requirements.

Lard, hydrogenated fats, and shortenings for institutional use are usually purchased in 50-pound drums.

Margarine is a fat made of either animal or vegetable fat or a combination of animal and vegetable fats. Much of the margarine on the market is fortified according to legal standards with vitamin A and thus fortified compares favorably with butter, nutritionally. The use of margarine is surrounded with legislative restrictions. It is necessary, therefore, for every restaurant operator to become familiar with the Federal and State laws which affect his sale and use of margarine.

For institutional use, margarine is packed in 1-pound prints, in 30-pound packages and in 60-pound tubs.

CHAPTER X

MODERN METHODS IN RESTAURANT COOKING

The equipment in a restaurant may be excellent, and food of high quality may be purchased, but unless the food is properly cooked, the restaurant will turn out to be another mediocre eating place which is not likely to last long or to be missed when it goes. Good cooking insures the best flavor and appearance, and helps to maintain essential nutritive values of foods.

Certain procedures apply to all food preparation. For example:

1. Use recipes for all foods. Follow these recipes accurately. Good recipes, standardized as to yield and portion sizes, giving careful directions for all steps in preparation and cooking, and suitable for different types of food service are available from many sources. Use such recipes as a basis for a recipe file; develop others which may become the "specialty of the house."

2. Prepare foods as near as possible to the time for cooking. Do not let perishables stand at room temperature for any length of time. Hold at low temperatures until used.

3. Complete the actual cooking just prior to serving, making allowances for time necessary to carve meats. In general, this means cooking in small quantities as frequently as service requires. Food that stands after cooking loses much of its fine flavor and nutritive value. Approximate cooking time is given in most recipes and in charts which are included in the appendix.

4. Taste each food before serving. Extra seasoning, or a change in consistency may be necessary.

5. Check appearance of the food to be sure that it looks appetizing and delicious as well as tastes that way.

Control of temperatures, time of cooking and the amount of liquid (where used) are the most important innovations in modern cookery.

Meats

Basic methods of meat cookery have been developed by careful

research. Certain methods are adapted to the cooking of tender meats, while others are adapted to the less-tender-meats.

In general, tender meats are best cooked by dry-heat methods. Typical methods of cooking meat by dry heat are: roasting, broiling and griddle-broiling (panbroiling). The cuts best adapted to these methods of cooking are those which contain relatively small amounts of connective tissue. Some tender meats also may be fried. No water is used in any of these methods and the meat is never covered.

Less-tender meats are made tender by moist-heat methods of cooking, the meat being surrounded by hot liquid or by steam.

There are a few exceptions to this rule of dry heat for the tender cuts and moist heat for the less-tender ones. Certain inherent characteristics of veal and pork make braising (moist heat) an excellent method for cooking pork and veal steaks and chops, and pork liver. Also, some tender meats may be cooked by moist heat for variety.

Braising and simmering (cooking in liquid) are the two methods of cooking meat by moist heat. The less tender cuts contain more connective tissue than the tender cuts, so moisture is necessary to soften that connective tissue and thus make the meat tender.

Braising is the method by which pot roasts and swiss steaks are cooked. A stew is cooked by simmering; also, large less-tender cuts of highly flavored meat may be simmered. This is the method that was once called boiling.

Experimental work, however, shows that meat never should be boiled. It should be simmered gently, since high temperatures are as detrimental to the meat cuts cooked by moist heat as to those cooked by dry heat. Since high temperatures shrink the meat unnecessarily, there is less meat to serve; and if a high temperature is maintained for any length of time with moist heat cookery, the connective tissue is dissolved, the meat dries out and falls apart. The result is the meat is less "sliceable" than when it is cooked below the boiling point.

In determining the best methods for meat cookery from the economy standpoint, the palatability of the meat must not be overlooked. The palatability of cooked meat is measured in terms of tenderness, juiciness, and flavor. Roasts ranking low in shrinkage rank high in palatability.

Excessive shrinkage during cooking affects adversely the appearance of meat. This point is extremely important, especially in self-service restaurants. As meat shrinks, it pulls away from the bones, and the muscle fibers become shrunken or collapsed, instead of remaining plump and full.

Low cooking temperatures for meat are preferable also for the

Timetable for Cooking Fish and Shellfish

Product	Form	Approximate weight or thickness	Cooking temperature	Approximate total cooking time
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BAKING

Fish	Dressed	3 to 4 lb.	350° F.	40 to 60 min.
	Pan-dressed	$\frac{1}{2}$ to 1 lb.	350° F.	25 to 30 min.
	Steaks	$\frac{1}{2}$ to 1 in.	350° F.	25 to 35 min.
	Fillets		350° F.	25 to 35 min.
Clams	Live		450° F.	15 min.
Lobster	Live	$\frac{3}{4}$ to 1 lb.	400° F.	15 to 20 min.
		1 to 1 $\frac{1}{2}$ lb.	400° F.	20 to 25 min.
Oysters	Live		450° F.	15 min.
	Shucked		400° F.	10 min.
Scallops	Shucked		350° F.	25 to 30 min.
Shrimp	Headless		350° F.	20 to 25 min.
Spiny lobster tails	Headless	4 oz.	450° F.	20 to 25 min.
		8 oz.	450° F.	25 to 30 min.

BROILING

Fish	Pan-dressed	$\frac{1}{2}$ to 1 lb.		10 to 15 min.
	Steaks	$\frac{1}{2}$ to 1 in.		10 to 15 min.
	Fillets			10 to 15 min.
Clams	Live			5 to 8 min.
Lobster	Live	$\frac{3}{4}$ to 1 lb.		10 to 12 min.
		1 to 1 $\frac{1}{2}$ lb.		12 to 15 min.
Oysters	Live			5 min.
	Shucked			5 min.
Scallops	Shucked			8 to 10 min.
Shrimp	Headless			8 to 10 min.
Spiny lobster tails	Headless	4 oz.		8 to 10 min.
		8 oz.		10 to 12 min.

COOKING IN WATER

Fish	Pan-dressed	$\frac{1}{2}$ to 1 lb.	Simmer	10 min.
	Steaks	$\frac{1}{2}$ to 1 in.	Simmer	10 min.
	Fillets		Simmer	10 min.
Crabs	Live		Simmer	15 min.
Lobster	Live	$\frac{3}{4}$ to 1 lb.	Simmer	10 to 15 min.
		1 to 1 $\frac{1}{2}$ lb.	Simmer	15 to 20 min.
Scallops	Shucked		Simmer	4 to 5 min.
Shrimp	Headless		Simmer	5 min.
Spiny lobster tails	Headless	4 oz.	Simmer	10 min.
		8 oz.	Simmer	15 min.

DEEP-FAT FRYING

Fish	Pan-dressed	$\frac{1}{2}$ to 1 lb.	375° F.	2 to 4 min.
	Steaks	$\frac{1}{2}$ to 1 in.	375° F.	2 to 4 min.
	Fillets		375° F.	1 to 4 min.
Clams	Shucked		375° F.	2 to 3 min.
Crabs	Soft-shell	$\frac{1}{4}$ lb.	375° F.	3 to 4 min.
Lobster	Live	$\frac{3}{4}$ to 1 lb.	350° F.	3 to 4 min.
		1 to 1 $\frac{1}{2}$ lb.	350° F.	4 to 5 min.
Oysters	Shucked		375° F.	2 min.
Scallops	Shucked		350° F.	3 to 4 min.
Shrimp	Headless		350° F.	2 to 3 min.
Spiny lobster tails	Headless	4 oz.	350° F.	3 to 4 min.
		8 oz.	350° F.	4 to 5 min.

reason that the use of high cooking temperatures makes the meat less tender. Furthermore, research has shown that the B vitamins, being water soluble, leach out into the drippings. As a result, low-temperature cookery, which results in small dripping loss, gives highest retention of these vitamins in the cooked meat.

The old idea that, in roasting meat, searing holds in the juices has been proved erroneous. Meat which is browned gradually is equally palatable and there is less shrinkage.

Experimental work on the effect of cooking temperature on fuel consumption has shown that slightly more fuel is used with high roasting temperatures than with low, despite the shorter cooking time.

Cooking time is used generally as a guide to the degree of "doneness," but many factors affect this time and the only accurate way to measure doneness under all circumstances is to use a meat thermometer. Internal temperatures of large roasts for different degrees of doneness are:

Beef:

Rare—120° to 125° F.*

Medium—135° to 145° F.*

Well done—150° to 160° F.*

*Lamb: Well done—170° F.

*Fresh pork: Well done—185° F.

*Cured pork: Well done—160° to 170° F.

*Veal: Well done—170° F.

With correctly controlled ovens, there may be little or no variation in roasting temperature from day to day. If there is a variation of even a few degrees, however, this will affect the cooking time. In general, the larger the cut the longer will be the total cooking time required and the fewer minutes per pound. A flat roast, however, will cook in less time than a chunky one of the same weight. Standing rib roasts will cook in considerably less time than if the same roasts are boned and rolled. The more cuts there are in the oven at one time, the greater will be the total time required for cooking, but the number of minutes per pound for total meat in the pan, or in the oven decreases. The higher the grade or quality of the meat or the heavier the fat covering, the faster the roast will cook. Roasts from well-aged carcasses require less time to cook than those which have not been aged. Cooking time for meats and poultry are shown in the appendix tables.

Fish

Fish are an excellent source of animal protein, a basic food element; some fishery products are good sources of vitamins A

* Thermometer reading when roast comes from oven.

and D. Minerals, important in nutrition and obtainable from fish, include calcium, magnesium, phosphorus, iron, copper, and iodine.

Basic rules for fish cookery are few and easy to follow. For that reason certain general methods may be applied to all classes of fishery products. For example, haddock, red snapper, halibut, and many other different kinds can be prepared according to the same recipe.

Do not thaw frozen fish until ready for cooking. Frozen fillets and steaks can often be prepared and cooking begun without preliminary thawing.

The basic rules for cooking fish are few and easy. A few basic methods may be used for cooking all fish if allowance is made for fat content, which varies with the species. Usually fat may be added by basting when cooking lean fish. Fat fish lose some of their fat in cooking.

Fish are *too often* overcooked. Just enough cooking to enable the flesh to be flaked easily from the bones will leave the fish moist and tender, and bring out the delicate flavor.

Fresh Vegetables

Cooking. Before cooking, fresh vegetables should be washed thoroughly. Greens must be washed in several waters to remove sand and dirt. Broccoli, cauliflower, and brussels sprouts should be trimmed before washing. Use a vegetable brush or paring knife to clean celery, asparagus, carrots, beets, and potatoes which are to be cooked in jackets. Pare vegetables carefully to keep waste low and food value high. Keep vegetables crisp and cool until time to cook. Timetables for cooking fresh vegetables are shown in the appendix.

To retain food value and flavor :

1. Cook as quickly as possible.
2. Have the water boiling when vegetable is added; add vegetable to the water.
3. Bring water back to boiling point as quickly as possible after vegetable is added.
4. If the vegetable is steamed, use steam trays or pans which will allow for spreading in shallow layers.
5. *Do not add soda.*
6. Cook vegetables with the peels on when possible. This is particularly desirable in the case of potatoes.
7. Bake whenever practical.
8. Serve the vegetable as soon as it is done or if this is impossible place it in cool water immediately after cooking to retain color.

9. Use the cooking water in soups, sauces or gravies.

To retain bright color :

In green vegetables—

1. Cook vegetables of the cabbage group (broccoli, new cabbage, and brussels sprouts) or those requiring a longer cooking period because of overmaturity (peas and green beans) in enough water to cover vegetables completely. Other green vegetables should be cooked in less water, or if very young and tender, they may be steamed.

2. Cook for a minimum of time.

3. *Never use acid* in the cooking water.

4. Serve immediately after cooking when possible.

5. Add butter, fortified margarine, bacon fat, or sauce just before serving.

In red vegetables—

1. Cook covered, except for red cabbage.

2. Add a little acid in the form of vinegar, lemon juice, or tart apples.

In yellow vegetables—

1. The color is stable and requires no special procedure.

2. Cook strongly flavored vegetables uncovered ; others, covered.

In white vegetables—

1. Strong alkali (soda) or very hard water turns white vegetables yellow.

2. Overcooking of certain white vegetables (cauliflower, winter cabbage, and onions) will cause a color change—reddish for cauliflower and cabbage ; grayish for onions.

3. Cook strongly flavored vegetables uncovered ; others covered.

To retain texture :

1. Vegetables should be crisp before cooking.

2. Cook until *just* tender.

3. Handle as little as possible.

4. Serve immediately after cooking.

5. If cooking very tender vegetables in a steam-jacketed kettle, cook a minimum quantity at a time, using a wire basket or coarse cheesecloth bag to make it easier to drain vegetables from the liquid.

Seasoning. The amount of salt needed depends on the texture and flavor characteristics of the particular vegetable. All vegetables should be *tasted before serving* and additional salt added to taste. The following quantities are suggested for mild seasoning :

Use 1 to 1½ ounces (2 to 3 tablespoons) per gallon of water

or

Use ½ to 1 ounce (1 to 2 tablespoons) to each 10 pounds of pre-

pared vegetables. Salt may be added at the beginning or end of the cooking period; however, better flavor is obtained if salt is added at the beginning.

Pepper improves the flavor of many vegetables. Other spices and herbs give interesting flavor and variety if used with discrimination.

Sugar improves the flavor of most vegetables, particularly if the vegetable is overmature. It is added after the vegetable has been partially or entirely drained. Use $\frac{1}{2}$ to 1 ounce (1 to 2 tablespoons) to each 10 pounds of prepared vegetable.

Add melted butter or fortified margarine or sauce to drained vegetables just before serving.

Use approximately 4 ounces butter or fortified margarine or 1 quart sauce to one No. 10 can or 5 pounds of prepared vegetables.

Preparation for Salads. Salad materials should be trimmed or peeled, depending on the vegetable, and allowed to stand for 5 to 10 minutes in sinks filled with cold water. The cores of loose-leaved varieties of lettuce should be removed before being placed in water to facilitate removal of sand and dirt. This is not necessary for tightpacked head lettuce if it is washed thoroughly and outer leaves removed. After washing, lettuce should be put into draining baskets and placed in refrigerator to become crisp and until ready to use. If this lettuce is to be held overnight, it should be kept in the refrigerator in a tightly covered container. Gallon glass jars with tight-fitting covers are excellent containers for small amounts of left-over salad materials. They will keep radishes or similar materials crisp for several days.

Greens must be kept damp. When dry, they wilt and become unpalatable.

Canned and Frozen Vegetables

Canned vegetables are already cooked and need only to be reheated. Prolonged heating, as on a steam table, decreases palatability and causes some loss of vitamins. Save all liquid from canned vegetables to use in soups, sauces, or gravies instead of water.

Frozen vegetables are cleaned, prepared, and ready to cook without further preparation.

Store vegetables at 0° to 10° F. until ready to use. If held at ordinary refrigerator temperature, 35° to 40° F., they will defrost in 6 to 8 hours. These foods will keep as long as they are solidly frozen, but once they are thawed they must be used promptly. Do not attempt to refreeze.

Follow general directions for cooking fresh vegetables so as to retain food value and flavor. In general, start to cook vege-

tables while they are solidly frozen. Spinach, however, should be thawed before cooking, and broccoli, asparagus spears, and corn on the cob should be partially defrosted before cooking, 1½ hours in the package at room temperature or 3 to 4 hours in the refrigerator. This is particularly important if vegetables must be cooked in a steamer. Frozen blocks may be broken into halves or quarters to reduce cooking time.

Place vegetables in boiling salted water. Bring the water again to boiling (second boil), stirring occasionally to separate vegetable. The time required for water to come to a second boil in a steam-jacketed kettle is about 2 minutes. Start counting cooking time from the second boil.

Quick-frozen vegetables require less cooking time than fresh vegetables, so it is desirable to cook for the exact time specified on the carton.

Bakery Products

No food items have shown greater improvement in preparation in recent years than have bakery products. This improvement has been directly reflected in sales and many restaurants have built a reputation on fine quality of hot breads and pastries. The production of enriched breads has also improved the nutritive value of these items.

Modern methods of cooking involve—

1. Use of tested formulas (recipes). These are given in weights as well as measures.
2. New mixing techniques.
3. New materials.
4. Carefully controlled preparation temperatures; for example, in the making of yeast doughs.
5. Carefully controlled oven temperatures for specified cooking times.

Coffee

Probably no single item has built—or ruined—more restaurant reputations than has coffee. A good cup of coffee will help retain old customers and bring new ones. A poor cup of coffee drives the customer elsewhere.

URN-BREWING METHOD

Preparation:

Flush stale water from boiler and water pipe. (Open boiler faucet and water supply valve.)

Fill boiler with fresh water and bring to a vigorous boil. Boiling water is indicated by a steady flow of steam from exhaust valve.

Fill jacket of coffee urn $\frac{3}{4}$ full.

Adjust heat under urn to maintain coffee temperature at 185°–190° F.

Rinse urn with hot water.

Rinse urn bag with clear, cold water and place in urn.

Making the Coffee:

1. Measure coffee accurately and spread evenly in urn bag. A uniform layer aids in uniform extraction. Two gallons of water per pound of coffee is a good allowance.

2. Rinse gallon measure with boiling water.

3. Draw a gallon of boiling water and pour over the ground coffee gradually, with a circular motion. (Fast pouring will cause splashing or floating of grounds into the brew.)

4. Replace cover. This keeps heat and aroma in the brew.

5. Draw succeeding gallons of water and pour over the grounds, replacing cover each time.

6. Remove bag from urn directly after water has dripped through. If allowed to remain, steam from brew will extract bitter substances. Water should drip through within 6 minutes.

7. After removing urn bag, mix brewed coffee by drawing off one gallon and pouring into urn. This assures uniform strength. If batches are larger than 5 gallons, draw off a gallon for each 5 gallons or fraction thereof.

8. Taste the coffee. Check heat to make sure brew will stay at 185°-190° F.

9. Remove grounds from urn bag. Rinse bag thoroughly and place in container of cold water. Urn bags should always be kept submerged in cold water when not in use to keep them clean and sweet.

The foregoing directions are specifically for battery urns—basically they apply to any type of urn.

In combination urns, water for coffee making is between inner jar and outside casing. This water must be boiling to make good coffee. The coffee is protected by an air space between the urn jar and water compartment.

In urns having a "siphon" sprayhead, water is forced over coffee by steam pressure. Check gauge reading regularly for accuracy.

When urn basket is used it may or may not employ paper filter. If paper filter is used be sure that paper and all parts of basket are dry before filter is inserted. Wet paper is likely to tear or split. Urn baskets and filters must be kept scrupulously clean. Clean urn between each use with stiff scrubbing brush. Never use steel wool.

VACUUM BREWING METHOD

1. Clean and rinse upper and lower bowls.

2. Your coffee supplier can furnish unit packages of ground coffee containing the proper amount for each brew. If you prefer to use bulk coffee measure it accurately. Use at least 3 ounces of coffee to 64 ounces of water.

3. Fill lower bowl with fresh cold water to mark on bowl. (Do not over-fill. Water expands when heated.) Place on high heat. If vacuum maker has a vented stem (a small hole in the side of tube above the hot water line) pot may be completely assembled before placing on heat. In latter type water in lower bowl will not start to rise until it boils. When water starts to rise reduce heat.

4. Adjust clean filter. Add measured amount of coffee to upper bowl. (If filter cloth is used rinse in cold water before using.)

5. When water in lower bowl is boiling briskly, reduce heat and set upper bowl on lower bowl with a slight twist, making a tight seal.

6. When water has risen into upper bowl (a little always remains in

lower bowl) stir thoroughly in both directions, for about 30 seconds and then shut off heat. Total infusion time should not exceed 3 minutes.

7. Serve immediately or place on warming unit to be held at 185°-190° F. (Never, never allow coffee to boil.)

8. Wash grounds from upper bowl and remove filter unit. If cloth filter is used remove from holder, wash in cold water, then place in cold water until next use.

Tea

Hot. Tea is the simplest of all beverages to make but the one that is the most frequently poorly made. If the following simple rules are followed, a good cup of tea will result.

1. Rinse out teapot with boiling water.

2. Use a good quality of tea. This is economical, since fine teas produce more cups per pound than lesser grades.

3. Allow one teaspoon of tea leaves or one tea bag for each individual cup of tea. If more than one cup of tea is being made, allow an additional tea bag or teaspoonful of tea leaves for the pot. If pot service is used—use pot size bag of at least 150 ct. to the pound.

4. Use only boiling water and pour it directly on the tea leaves or tea bag. The water is boiling when bubbles break on the surface.

5. Steep the tea from 3 to 5 minutes, according to the taste. The aroma and flavor are at their best when the tea is allowed to steep a full 4 or 5 minutes.

Milk for tea use, instead of cream, will produce a better cup of tea flavor-wise and cut costs.

Many restaurants serve the hot water in a teapot or cup and the tea bag at the side so that the customer can make his own cup of tea. This is an unwise procedure as only a mediocre cup of tea can result. The boiling water must be poured directly on the tea.

Iced:

1. Pour one gallon of boiling water over one 2-ounce tea bag (or two 1-ounce tea bags) in a crock or stainless steel container.

2. Let steep for 6 to 10 minutes (no longer), stir and remove bags, pressing them against the container's side to squeeze out the liquid.

3. Serve in ice filled glasses.

CHAPTER XI

SANITATION, CARE OF EQUIPMENT, AND SAFETY

Three points in restaurant management are vitally important to building a successful business—sanitation, care of equipment, and safety. Each is briefly discussed in this chapter.

SANITATION

Importance

All too often food and drink carelessly handled and prepared become sources of disease and even death. Disease may be spread to customers through food and drink or through utensils contaminated by diseased food handlers, by pests, or by careless handling.

The public attempts to protect itself by means of inspection by departments of health. If the situation in a restaurant is very bad, the health department will close the establishment permanently or until such time as the condition is remedied. But inspection staffs are inadequate for the volume of work necessary and inspections cannot be made as frequently as would be desirable. For daily protection, the public must depend on the efficiency of restaurant managers and employees. It is to the restaurant owner's best interest to follow every precaution in the handling of food. Once the public gets the impression that a restaurant is careless in this regard, it will stop patronizing the place and the restaurant loses business.

Many excellent suggestions for sanitation are published by the United States Public Health Service, Washington, D. C. Your local health department can offer advice also.

Germ

The sanitary procedures that will insure protection of guests depend upon the characteristics of germs.

Characteristics

1. Most disease germs grow best at body or room temperatures. Low temperatures slow up growth.
2. High temperatures usually destroy.

3. Favorite media are:
Milk

Water

Meat

Seafoods

Custard pies and pastries—salad dressings containing eggs
Improperly canned foods

Sanitary procedure

Store foods promptly in refrigerator. Do not let stand on steam tables.

Use hot water at sufficiently high temperature in washing dishes and utensils. Most State laws prescribe the minimum temperature for dishwashing. Cook meat, especially pork, to temperature high enough to destroy organisms, cook pork thoroughly.

Buy pasteurized fresh milk, and keep in refrigerator until served. Test before serving.

Store food and utensils so that they cannot be contaminated by overhead pipe leakage, by water collecting on overhead plumbing, by sewage backflow or flooding of the premises. All waste water from refrigerator must be drained into sewer or collected in watertight pans. The refrigerator should drain through an air gap, so that no sewage can back up into the box if the drain clogs. No milk or other beverage should be kept under water for cooling, unless in leakproof containers. Wash fruits and vegetables to remove possible contamination by polluted irrigation water or insecticide sprays.

Always look for Federal inspection stamp or that of an equally reliable State or local authority.

Buy from sources approved by State health department. Do not accept shucked shellfish except in original container showing packer's State and firm's certificate number. Most States require that shellfish be bought from licensed suppliers only, and require that license tags be kept by restaurant for inspection.

Serve promptly or refrigerate immediately below 50° F.

Home canned products should not be used; if they are, extreme care must be exercised. One source of information: Bureau of Home Economics, U. S. Department of Agriculture. Discard all bulging cans and all canned food having bad odor or mold.

Pests

There are many kinds of restaurant pests, but the most common are rats, mice, flies, and roaches. To make certain none of them contaminate your food and dishes:

Be sure that all doors are self-closing and open outward.
 Screen all doors, windows, transoms, skylights, and similar openings.
 Use a powerful exhaust fan to remove odors and smoke.
 Keep walls, floors, and ceilings clean and in good repair.
 Dispose of all garbage, rubbish, and litter promptly.
 Keep garbage cans covered tightly; empty and wash regularly. Garbage disposal units eliminate many health problems.
 Kill flies and roaches with sprays and powders. Use those when there is no danger of contaminating food or work surface.
 Leave no food exposed overnight.
 Remove all crumbs and food particles at the end of each day.
 Keep out rats with ratproof construction.
 Be sure that all toilet rooms have vestibules and that the doors are kept closed at all times. Toilets should be kept meticulously clean with disinfectants.

Personal Habits

You and your employees should at all times practice habits of personal cleanliness. A few basic rules are given here:

Use plenty of soap and hot water.
 Keep body and clothes clean.
 Wash hands after visiting the toilet.
 Stay at home when sick.
 Don't cough, spit, sneeze, or smoke near food or dishes.
 Keep fingers out of food and clean utensils.
 Use only clean, wholesome foods.
 Beware of poisons.
 Permit no dirty utensils or equipment to touch food.
 Protect foods from flies, rats, roaches, and other vermin.
 Keep premises spotless.

Sanitation Checklist

In many sections of this manual, suggestions are made concerning sanitation in one connection or another. The list which follows repeats some of these, but serves to emphasize their importance.

1. Plenty of hot and cold running water—under pressure—at all times.
2. Tongs and scoops for handling ice. Ice-cream scoops kept in clear running water.
3. Enough conveniently located toilets and lavatories for all workers. Wash basin in kitchen. Sinks for other purposes should not be used by employees for washing hands.
4. Soap and individual paper or cloth towels for employees.
5. Self-closing toilet doors.
6. At least one room between the toilet and any room where food, drink, or utensils are handled or stored. (This is a *must* for newly constructed restaurants.) A "booth" open at the top or bottom is not enough.
7. Signs posted in all toilets reminding employees to wash their hands before returning to work and to report any sickness, open wound, or infection to the manager.
8. Clean toilet rooms and fixtures, kept in good repair, free from flies, well-lighted, and well-ventilated.

9. No cross-connections with or back-siphonage into the water supply from sinks, dishwashing machines, lavatories or toilet.
10. Liquid wastes draining into the public sewer, or otherwise disposed of according to health department rules.
11. Grease traps in good repair and cleaned frequently to avoid clogging.
12. Walls and ceilings clean and in good repair.
13. Floors smooth, and in good repair.
14. Loose food in storeroom kept in covered containers, preferably metal or glass.

Methods and Materials

Cleanliness is of paramount importance to the success of a restaurant.

1. The psychological effect of cleanliness on the customer is valuable in building patronage. Clean counters, tables, chairs, and fixtures, shining china and flatware, fresh draperies, walls free from streaks and smudges, a well-kept floor—all these provide an atmosphere which gives the guest confidence in the cleanliness of the food served and increases his enjoyment of it. The restaurant operator should select furnishings and equipment not only for their attractiveness but for the ease with which they can be kept free from dirt.

2. The durability and efficiency of expensive equipment is definitely affected by careful, regular cleaning.

3. The quality of the product may depend on cleanliness. For example, food cooked in greasy, poorly-washed pots and pans may lose some of its fresh distinctive flavor; food stored in a dirty refrigerator may absorb some of the odors of spoiled or rancid scraps left in a carelessly cleaned, disorderly box.

4. The safety of customers depends upon wholesome food prepared and served in clean surroundings by clean people. The service of clean, safe food is not only a public responsibility of the restaurant operator, it is a necessity for the survival of the business.

Methods. Cleanliness can be maintained with a minimum of labor on the part of managers and employees by:

1. Following a definite cleaning routine, changed from time to time as better methods are developed.

2. Providing good cleaning materials and tools and by training employees in their use.

3. Training employees in clean work habits.

4. Supervising and checking to see that high standards of cleanliness and sanitation are maintained.

Materials. Dirt of several types must be removed in cleaning the restaurant and its equipment.

1. Loose dirt on floors is removed by brush or vacuum cleaner.

2. Chewing gum, grease or oil are removed with turpentine, gasoline, benzine or kerosene. Make sure there are no open flames when using inflammable fluids. Destroy or store safely in metal containers cleaning cloths used.

3. Most cleaning for all other types of soil is done by *water* alone or with the addition of a *detergent* or an *abrasive* or both. The cleaning process consists of four steps:

- a. Wetting the soiled surface.
- b. Removing the soil with water containing the detergent.
- c. Thorough rinsing.
- d. Drying (in most cases).

Some facts about water are of importance:

(1) Soft water cleans more efficiently than hard. The hardness of water may be reduced by the use of softening agents in the detergent, or some of the newer agents may be used with hard water for any cleaning purpose for which soap is suitable.

(2) Hot water cleans more efficiently than cold. Hot water (180° F.,) melts grease and dissolves detergents readily.

The properties of a good detergent should include the following:

1. *Wetting*: The ability readily to wet the surface being cleaned.

2. *Emulsification*: The ability to emulsify fats and oils, such as fats from the food left on dishes.

3. *Dissolving*: The ability to dissolve food materials, particularly proteins.

4. *Deflocculation*: The ability to break up dirt particles.

5. *Dispersion*: The ability to function properly in hard or soft waters. The detergent should preferably be of a type in which the formation of a film or deposit of mineral salts and similar substances will be minimized.

6. *Rinsing*: The property of being easily rinsed off by clean water.

Cleaning Dishes and Utensils

Dishwashing procedures must clean tableware thoroughly, removing all food particles, and reducing bacterial count, some of which may be disease organisms. The following outline indicates the steps to be taken in cleaning dishes and utensils:

Dish washing by machine

1. Maintain wash and rinse water at proper temperature throughout the operation.

Wash water 140° to 160° F.

Rinse water 180° F.

2. Add correct amount of detergent at the start and see that adequate additional amounts are added regularly. Automatic dispensers are desirable. Select detergents on the basis of local

water conditions. If the water is extremely hard, water softening equipment will reduce the amount of compound required and lessen upkeep on water heating equipment.

3. Scrape dishes thoroughly, rinse under running water if possible, and stack according to size unless they can be racked immediately. Place dishes of one size in the same rack; do not overcrowd.

4. Leave the racks in the machine for the proper time: 40 seconds to 1 minute for washing and 10 to 20 seconds for rinsing at 180° F. Thorough rinsing is essential.

5. Handle clean utensils with care. Do not touch surfaces that may later come in contact with food, beverages, or mouths of customers.

6. Avoid toweling.

7. Store in a clean dry place. Cups and glasses should be stored inverted on clean trays or in wire racks. Shelves used for storage should be washed daily.

China

1. Soak dishes in which cereal, eggs or starch have been served, or rinse in cold water before washing.

2. Do not overcrowd the racks.

3. Place cups upside down in racks. Wash and rinse as directed above.

4. Allow time for dishes to drain and air-dry before removing from racks and stacking.

5. Inspect cleaned dishes under good light to make sure each is clean and shining.

6. Remove stains by washing in sodium hypochlorite solution. In extreme cases, soak in weak acid, such as vinegar or 5 percent hydrochloric acid, and then scour with whiting.

Glassware—Tumblers and Stemware

1. Use clean water in machine. Wash glasses before or after other dishes, not at the same time. Glasses may be washed in a separate machine.

2. Use good washing powder, avoiding those which form lime scale.

3. Rinse milk glasses before putting them in machine.

4. Place glasses upside down in racks, preferably wire racks, in which they can be stored until needed at counter or tables.

5. Wash and rinse as directed above.

6. Avoid toweling if possible.

7. Inspect for lipstick and streaking.

Glass Dishes and Pitchers

Run through machine, using methods for tumblers. Handle carefully

or

1. Wash by hand in hot, soapy water.
2. Rinse thoroughly.
3. Dry immediately.

Glass Baking Dishes

1. Run through machine, using methods for tumblers.
2. If foods burn onto the surface of the dish, cool, fill with soda solution (3 tablespoons to 1 quart water). Soak 30 minutes. Wash.

Silver

1. Soak forks and spoons with egg yolk stains in cold water.
2. Wash in clean water; dirty water will promote tarnish.
3. Wash and rinse as directed above.
4. Avoid toweling. If necessary to towel, place silver on a clean towel, cover with another and pat dry.
5. Pick up by handles.
6. To remove tarnish:
Use a good silver polish

or

Place silver in tinned kettle, inserting aluminum plate to produce electrolytic action. Add one tablespoon of baking soda, or trisodium phosphate to each gallon of water. Keep solution hot but not boiling. Rinse in boiling water. Silver may be polished to restore luster.

Note.— Silver may be removed from trays to a wire basket which is placed in a matching pan filled with water containing a small amount of alkyl-dimethyl-benzyl-ammonium chloride (roccal).

Dishwashing (hand) of China, Glass, and Tableware

1. Scrape and sort.
2. Prerinse by a spray of water from a swinging hose spray mounted over a rinsing sink.
3. Place in washing sink and wash thoroughly in water kept at 140° to 160° F. and containing at all times an adequate amount of a suitable detergent. Change water often enough to keep it reasonably clean.
4. Place clean dishes in baskets.
5. Immerse baskets containing dishes in hot water at 180° F., minimum temperature, for 2 minutes.
An intermediate rinse is recommended.
6. Drain and dry.
7. Avoid toweling. If toweling is required in hard-water area to prevent spotting, use *clean* towels.
8. Store in a clean, dry place.

Pots and Pans

Aluminum—

1. If necessary, soak in warm water and scrape out loosened

food. Fine steel wool or commercial aluminum cleanser may be used when necessary. Do not use soda, lye, or strong powders.

2. Wash in hot water with mild soap. Use a pot washing brush. Change water frequently.

3. Rinse in clean, hot water.

4. Drain. If rinse water is very hot, toweling is not necessary.

5. If food has been burned on, fill pan with hot water, cover and boil for 10 minutes, scrape out food. Do not put cold water into very hot aluminum skillets; it may cause them to warp.

6. Clean darkened aluminum with lemon juice, tomato, vinegar, or rhubarb.

Stainless steel—

1. If necessary, soak in warm water and scrape out loosened food.

2. Wash in clean hot water with mild soap, or washing powder containing soap. Use a pot washing brush. Change water frequently.

3. Rinse in clean, hot water.

4. Drain. If rinse water is very hot, toweling is not necessary.

Cleaning Floors

<i>Type of floor</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
Linoleum	<i>Daily:</i> Dry mop; damp mop if necessary.	Lukewarm water
Rubber tile		and mild soap.
Asphalt tile	<i>Monthly:</i>	
	1. Damp mop with warm, mild soap-suds to remove dirt and dust.	
	2. Rinse with clear warm water.	
	3. Rewax spots which receive heavy wear.	Liquid water-base wax.
	4. Polish with weighted brush or electric floor polisher.	
	<i>Twice yearly:</i> Rewax entire floor; oftener if needed.	
	<i>Special care:</i>	
	1. Never use strong soaps or harsh scouring powders.	
	2. Never flood surface with water.	
	3. Never use shellac, varnish, or lacquer.	
	4. Equip furniture with cushion glides or rubber casters.	
	<i>Steps to follow in damp mopping:</i>	
	1. Assemble all necessary equipment.	
	2. Use 2 buckets: One for cleaning solution, one for clear, warm rinsing water.	

<i>Type of floor</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
	3. Apply cleaning solution with mop, covering small area at a time, and scrub. 4. Wring mop and pick up soiled solution. 5. Wring mop and rinse area with clear water. 6. Wring mop and wipe up all excess water.	
	<i>Important.</i> Avoid slopping base boards with scrub water.	
Floor tile	Mop. Surface stains can be removed by scrubbing.	Hot water and fine abrasive powder or trisodium phosphate solution: $\frac{1}{2}$ ounce to 2 gallons warm water.
Cement Terrazzo	1. Wet floor. 2. Scrub. 3. Rinse thoroughly. To remove grease or soil (should be done rarely): 1. Wet floor. 2. Apply solution. 3. Scrub with stiff brush. 4. Rinse thoroughly. <i>Special care:</i> Cement and terrazzo floors should be hardened before they become stained. To harden: 1. Make up stock solution of magnesium silico fluoride: $2\frac{1}{2}$ pounds to 1 gallon water. This solution is applied in 3 dilutions of increasing strength at 24-hour intervals. Apply with stiff broom or brush and keep floor evenly wet for 1 hour. a. First application: Use 1 gallon of stock solution to 2 gallons water. b. Second application: Use 1 gallon of stock to 1 gallon of water. c. Third application: Use 1 gallon of stock solution to $\frac{1}{2}$ gallon water. 2. Twenty-four hours after third application, rinse thoroughly with clear water and mop dry.	Hot water and fine abrasive powder. Trisodium phosphate solution: 4 ounces to 2 gallons warm water.

Cleaning Walls

Type	Method of cleaning
Painted	When walls are heavily soiled they must be washed. Dust thoroughly before washing. Work from top down. To wash: 1. Start at bottom and work up. Apply cleaning solution to a small area with sponge or soft cloth, using circular motion. 2. Rinse with clear soft water. Hard water may streak or spot. 3. Wipe with toweling rung out of clear water. Use up-and-down stroke. When washing new area, always start within cleaned area to avoid streaking.

Cleaning materials
For dusting:
Soft wall brush of hair, nylon, lamb's wool, yarn or sponge rubber with long handle.
For washing:
 $\frac{1}{2}$ oz. trisodium phosphate to 2 gallons warm water or 1 teaspoon tetraphosphate to 1 gallon warm water or neutral soap solution.

Cleaning Windows

- | Method of cleaning |
|---|
| <ol style="list-style-type: none">1. Apply water with cloth or sponge.2. Remove with squeegee. |

Cleaning materials
Water with a little vinegar or ammonia added.

Cleaning Equipment

Equipment	Method of cleaning
Range	1. Remove all burnt sediment and wipe grease from top of range after each using. 2. Scrape grease from cracks and openings and hinges. May use wire brush. 3. When cool, wash top of range. Dry well. 4. Run oiled cloth over top of range. 5. Clean oven by removing grates, scraping off food deposits, washing and drying. 6. Keep burners clean. If removable, soak, boil, scrub with stiff brush, rinse and dry (gas). Clean with brush only (electric). 7. Before replacing burners, rub with oiled cloth.
Bake oven	1. Clean outside of oven when cool. 2. Clean steel shelves. 3. Wipe heat control with damp cloth. Do not loosen dials. 4. Clean thermometers.

Cleaning materials
Hot water, mild soap.
Fine abrasive powder.
Water containing washing soda.

Kerosene.

For outside:
Light oil or damp cloth.
For shelves:
An abrasive and dry cloth or mop.
Soft brush and fine abrasive powder.

<i>Equipment</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
Broiler	1. Remove grid and drain pan. Clean, wash, rinse thoroughly and dry after each use. 2. Wash outside, rinse and dry. 3. Wipe with oiled cloth. 4. Clean grease pan. Wash and dry.	Hot water, mild soap and steel wool or abrasive powder.
Coffee urn	1. Drain after each meal. 2. Rinse thoroughly. 3. If bag is used, rinse and let stand in cold water after each use. 4. Clean gauges and faucets daily. 5. Wipe outside surfaces. 6. Clean urn bottom frequently.	Clear, hot water. If discolored inside, use fine abrasive powder or baking soda. For gauges: Special brush.
Fryer, deep fat	1. Drain off fat and strain out sediment. 2. Fill with water and detergent and boil. Drain. 3. Fill with water, one cup vinegar and boil. 4. Rinse, dry, wipe off outside of fryer.	Detergent, vinegar. For outside: Grease solvent or mild soap.
Steamer	1. Remove racks or shelves and clean drains. 2. Wash inside of cooker daily. 3. Wash outside regularly. 4. Blow out mud leg several times daily during operation. Clean strainer as required.	Water and fine abrasive powder.
Toaster	1. Wipe off all crumbs around toaster after each use. 2. Clean crumb tray after each use. 3. Brush operating parts. 4. Wipe outside with damp cloth.	Soft brush. Water.
Waffle iron	1. Wipe baking surfaces frequently during use. 2. Brush out grids. 3. Place damp cloth between grids overnight (weekly, if iron is used daily). 4. Brush grid. Re-season by brushing waffle iron with oil, closing, and heating for 5 minutes.	Brush recommended by manufacturer. Dampen cloth with ammonia.
Mixer	1. Use rubber scraper if necessary, and wash bowl and beaters immediately after using. 2. After mashed potatoes, egg mixtures or flour batters, rinse bowl and whips with cold water before washing with warm water. 3. Dry beaters and bowls thoroughly and hang up. 4. Wipe machine including shaft with cloth.	Warm water and mild soap.

<i>Equipment</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
Grinder and other attach- ments	1. Remove disk and nut. 2. Remove grinding or cutting part. 3. Wash. 4. Rinse. 5. Dry thoroughly.	Warm water and mild soap or other detergent.
Meat delicator	1. Remove slide and protector and wash thoroughly after each using. 2. Remove and wash stainless-steel blades under running water, using brush to remove all soil between knife-like prongs immediately after using. 3. Wash outside of machine after each using. 4. Weekly or as required remove entire casing of machine and brush off parts enclosed.	Hot water and mild soap.
Peeler	1. Flush out inside of peeler each time after use. 2. Remove disk, scrub disk and sides with stiff brush. Rinse base thoroughly. 3. Empty and clean the peel trap after each use. 4. Wipe outside of machine with damp cloth.	Water.
Slicer	1. Clean immediately after using, especially after slicing vegetables and fruits. 2. Remove all parts to clean. 3. Clean knife with damp cloth, dry. Cover with oil. 4. Wash carriage slides thoroughly. 5. Wipe outside with cloth. 6. Clean table or pedestal under slicer. 7. Replace guard after cleaning.	Tasteless, colorless oil. Hot water and mild soap.
Dish- washing machine	1. Remove strainer pans, wash and stack outside machine until next use. 2. Add compound to clean water in empty machine, run for 1 minute. Rinse. A hose is convenient to flush corners. 3. Scrub inside frequently with stiff brush. 4. Remove and clean the wash and rinse arms and jets daily to remove foreign particles. 5. Wash tables and top of machine. 6. Clean nozzles. 7. Special periodic cleaning in hard-water area.	Any form of non-suds detergent suited to water hardness. Water and mild soap. Acid bath as recommended by manufacturer.

<i>Equipment</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
Refrigerator	1. Wipe up spilled food immediately. 2. Wash inside, shelves, and trays at least twice a week. 3. Rinse and dry thoroughly. 4. Flush drains weekly. 5. Put in order daily.	Water and trisodium phosphate (½ oz. to 2 gallons water). To rinse: Weak solution baking soda (½ oz. to 2 gallons water). To flush: strong boiling solution of sal soda (4 oz. to 2 gallons).
Ice cream cabinet	1. Place towel in bottom of well. 2. Loosen ice by tapping gently with wooden mallet. 3. Lift out towel containing broken ice. 4. If ice cream has melted into the well, wipe inside with damp cloth. 5. Dry thoroughly. 6. To remove odors: Set pan of charcoal in well, cover, and let stand several hours.	Cold water and ammonia.
Grease inter-ceptor	Weekly or oftener: 1. Loosen bolts or remove fastenings and remove cover. 2. Carefully remove the top layer of grease from each compartment, using an ordinary dipper or skimmer. Do not skim below the water line. 3. Deposit grease in special container provided for <i>grease only</i>. 4. Take out baffles and screens. With scraper or squeegee remove any slinging grease from baffle plates, dropping it into inter-ceptor where it can readily be skimmed off. 5. Complete cleaning out of inter-ceptor chamber, depositing sediment in garbage. 6. Open hot-water faucet into inter-ceptor and scrub interior and baffles. 7. Replace all baffles in original location, replace, cover, and fasten down <i>tightly</i>. Flush thoroughly until all cleaning compound is washed into drain.	Strong detergent. Hottest water available.

<i>Equipment</i>	<i>Method of cleaning</i>	<i>Cleaning materials</i>
Sinks and drains	1. Keep outlets screened at all times. 2. Daily: Flush with 1 gallon of solution. 3. Weekly (or as required): 1. Clean grease traps. 2. Replace all units tightly. 4. Use force pump if drain is slow. 5. Replace washers immediately on leaking faucets. To replace: Close the water shut-off valve; loosen the hexagonal nut on the faucet, permitting water in the pipe to drain out; remove interior screw, replace washer; reassemble in same manner.	Boiling, strong solution of sal soda (4 oz. to 2 gallons).
Tables	Stainless steel; wipe with damp cloth. Wood top: 1. Scrub with heavy brush. 2. Rinse. Meat block: 1. Scrape with steel scraper or heavy steel brush. 2. Wipe. Do not use water on top surface. 3. Wipe outside of block with damp cloth.	Warm water and mild soap. Clean water. May use chlorine solution, 100 p. p. m. Warm water and mild soap.
Washrooms	1. Clean all washrooms at frequent intervals each day. Current practice is a check for cleaning at 2-hour intervals, oftener in busy periods.	Warm water, mild soap, mild abrasive.

Care of Cleaning Equipment

Scrub Brushes

After use, scrubbing brushes should be washed, rinsed and hung or rested on back until dry.

Buckets

Ten to twelve quart galvanized buckets are generally used for cleaning. After use, the buckets should be emptied and washed. They should never be allowed to stand with cleaning solution or water in them when not in use.

Sponges and Cloths

Sponges and cloths are employed for the hand cleaning of equipment.

Sponges for cleaning paint may be of wool or cellulose. They should be tough and durable. Soft sponges, such as sea sponges, are not suitable.

Mops

Cotton string mops with detachable heads are commonly used for dry and wet mopping. A 12-ounce mop is a good weight for women, 20 ounces for men. It is essential that they be kept clean. They should be washed and dried at the end of each day, oftener if necessary. They may be washed on the handles for regular daily care. Wash in bucket of hot water containing 2 ounces of soda, or $\frac{1}{2}$ pint soap jelly or $\frac{1}{2}$ ounce trisodium phosphate. Rinse thoroughly. Stand on handle in mop rack to dry.

Make a small, 2-shelf portable rack, with holes in top shelf and guides on bottom shelf, for holding mops and brooms in kitchen or storeroom. Place handles of mops and brooms through holes in the top shelf, resting on bottom shelf. This protects walls and removes wet, dirty mops from corners.

Brooms

Corn brooms should be kept dry and stored on handle ends.

Dust Pan and Brush

A dust pan with brush or broom should be kept at convenient points for sweeping up broken dishes and spilled food. After spilled food is swept into pan it may be necessary to wipe floor with damp mop.

CARE OF EQUIPMENT

One of the most important responsibilities of the manager and employees is the care of equipment. Good care is facilitated by proper installation and, following that, by cleanliness, careful operation, and proper maintenance. Instructions for operation of machines and cooking equipment are usually furnished by the manufacturers. It is essential for the manager to see that all employees thoroughly understand the use of the equipment and its proper operation and that they are held responsible for its daily care.

Gas Appliances

All heavy-duty gas cooking equipment should meet standards of the American Gas Association as to performance and safety, and should be installed so as to conform to fire underwriters' requirements. Cooking equipment should be set on a fireproof floor.

Gas cooking equipment is usually installed under a hood which is connected with a ventilating system. The fan in this system must be large enough to remove cooking odors, smoke, and excessive dust, and must be serviced regularly.

Proper flue pipes should be attached or built into each piece of

equipment as required for good installation. Manufacturer's instructions should be followed. Piping and meter should be adequate to permit pressure required at peak production periods; original piping should allow for possible additions to cooking equipment.

Ducts and canopies over cooking equipment become coated on the inside with grease and other deposits from foods, eventually creating a possible fire hazard. Accessible surfaces should be cleaned regularly, and the entire system thoroughly cleansed at least once a year.

The ducts can be coated on the inside with fireproofing chemicals which may prevent grease fires. It is a good idea to have the regular cleaning as well as the fireproofing done by an organization specializing in such work.

Good maintenance of gas cooking equipment reduces fuel costs and keeps the efficiency of the cooking unit at a high level. Routine maintenance servicing of the equipment is essential; this should be done at least once every 3 months or oftener, if needed. Many gas companies offer service at nominal cost, as do some service organizations and plumbers. It includes:

1. Lubrication of valves for easier operation.
2. Adjustment of the proportion of air and gas in each burner to give clear blue flame.*
3. Checking of pilot and ignition lights.*
4. Cleaning and regulation of the heat controls so that the reading on the dial of the thermostat corresponds to the actual temperature of the oven, or fryer. This adjustment is necessary if the desired cooking temperatures are to be maintained by the heat control devices.

Careful management prolongs the life of gas equipment. The good supervisor sees to it that equipment is heated just in time for use, kept at temperatures no higher than required, and turned off promptly. The supervisor should also distribute the cooking load so that not all work is done on range tops while the ovens remain practically unused.

Electrical Appliances

Electrical equipment should be selected and installed to meet safety and fire regulations.

As in the case of gas equipment, careful operation decreases maintenance and repair costs at the same time that it lowers fuel bills. Wear on automatic heat controls is lessened by turning switches to "low" when any device is idle.

* These services may be performed by the local gas utility company.

If any heating unit is not operating properly it should be reported immediately to the manager. Regular inspection should include:

1. Testing for loose connections.
2. Burned-out fuses.
3. Off-calibration of heat controls.
4. Oiling of moving parts as directed in service instruction.
5. Cleanliness.

Monthly inspection and adjustment by the utility company or service agency is well worth the small service charge by catching incipient faults and correcting them before they become serious.

Certain precautions which apply to all electrical appliances are as follows:

1. Examine all appliance cords regularly; this takes a few minutes once a week. Keep rubber-covered cords free of oil and grease; keep all cords dry. Some of the newer coverings for cords are grease resistant.

2. The first small crack, break or fray in cord insulation calls for immediate attention. Wrap spirally with friction tape for several inches on both sides of the damage. If a wire is exposed, wrap the wire first, then the entire cord.

3. Keep cords straight; cords that are kinked, knotted, or bent, wear out rapidly. If necessary, put on a plastic wrapping; the type sold for telephone cord straighteners is satisfactory.

4. Cracked, broken or loose-pronged plugs are sure to cause trouble; replace them at once. When removing plugs from outlets, grasp the plug and pull firmly. Never pull out by the wire. Plugs with long necks are most convenient.

5. Plugs that fit loosely in outlets may cause short circuits or burn-outs. Remove plug, spread prongs slightly, and insert in outlet again. If the fit is still loose, the outlet is worn and should be replaced.

6. Keep all electrical equipment dry. When cleaning requires water, be sure to see that no water enters the heating element. Dry thoroughly and immediately. A trace of moisture in the wrong place can blow a fuse, cause a short circuit, and start a fire.

7. Keep all wiring and elements free from grease; dry thoroughly and immediately.

8. Never touch any electrical appliance for cleaning or repair unless the plug is removed from the outlet, or, in the case of a switch-controlled device, the switch is thrown open. It takes a few seconds to make sure that current is disconnected; it may take months to repair the damage of carelessness.

9. If an appliance will not work, check the fuse box first. Replace blown fuse only with fuse of same capacity. Be sure that fuse

or fuse clip is tightly in place. If the same fuse burns out repeatedly, call an electrician.

10. Electric heating elements that are "burned out" sometimes have nothing wrong but a broken wire which can be spliced by an electrician at less cost than a new element.

Refrigeration: Electrical units. Regular inspections and service of cooling units by a service man is desirable. This includes inspection of electrical parts; draining, flushing and refilling oil pumps; and complete cleaning of unit. Most maintenance, however, can be done by a manager or employee without special training. Cooling units can be kept in good working condition by frequent attention to the following points:

1. Compressor motors usually have two bearings which require lubrication. Follow manufacturer's directions exactly as to grade and amount of oil. Do not let oil run over.

2. Tighten the bolts that hold the motor down. Vibration often loosens nuts. Regular checkup avoids trouble.

3. Inspect belt. Aline it daily. Keep oil away from belting. Adjust to proper tension after instruction from service man. Proper tension is generally indicated when gentle pressure of two fingers can push the belt down about one-half inch.

4. Remove dirt from compressor motor and condenser fins weekly. Use a stiff brush or a vacuum cleaner or tire pump.

5. If compressor stops, check above points before calling service man. Also examine (a) plug, (b) fuse, (c) main switch.

6. Check regularly for refrigerant leaks, indicated by overlong compressor operation or not enough cooling power. Leaks often occur at joints and may be detected by brushing with soapsuds and watching for bubbles. In case of a refrigerant leak, call service man immediately.

If a cooling unit is equipped with a blower and is properly adjusted, frosting of the coil will not occur. In older cooling systems coils become frosted. The ice coating, which reduces efficiency of the unit and absorbs odors, must then be removed.

1. Defrost weekly if necessary.

2. Examine door gaskets monthly; if not soft and resilient, replace.

3. Keep doors tightly closed and open only when necessary.

4. Watch temperatures: Meat, fish, and poultry, 32° to 35° F., others 45° to 50° F.

General Care

Lubrication. Proper lubrication of all equipment having motors or moving parts is essential to keep it operating at maximum efficiency. Standard practice calls for weekly inspection, and for

oiling and greasing where and as required by the individual piece of equipment and its use. It is important to see that every oil and grease cup on each piece is checked regularly. Use the oil recommended by the manufacturer; never use excess. For general utility oiling, S.A.E. 20 motor oil such as is sold at gasoline stations is both satisfactory and economical.

New peelers, slicers, cutters, and mixers (except large sizes) now have self-lubricating motors with oil-sealed bearings. Grease cups require adjustment but the machines need no oiling except at the attachment head. They should be serviced and bearings repacked, if necessary, every 1 to 1½ years. The protective rim for catching wornout oil, found on certain machines such as mixers, should be removed and cleaned weekly.

It is a good plan to make one person responsible to the manager for all lubrication. An oiling chart should be kept by the manager showing the name of the equipment and the date of each oiling.

Use Small Tools. A restaurant manager can prevent a good deal of trouble and annoyance with a screw driver and a pair of pliers. For example, a leak in the pump of a dish washer may frequently be stopped by tightening the pump packing nut. Or, the disk in a leaking valve fill may be easily replaced, using pliers or a small wrench.

Tighten screws and nuts which have loosened through constant use. Such a general tightening up at regular intervals will prevent excess wear, and forestall serious trouble.

Check Scales. Almost all items of food are now bought by weight and accurate scales insure that the manager gets what he pays for. Inaccurate scales may also throw formulas out of adjustment, or spoil the efficiency of portion control. Check and adjust scales weekly. The local bureau of standards will check scales on request.

SAFETY

Accidents in a restaurant present a problem to the restaurant operator. Most accidents occur during the rush hour when replacements generally cannot be obtained quickly enough to be of help, and consequently service of meals may be seriously disrupted. Many of them can be avoided if steps are taken to remove hazards and educate employees to be safety-minded.

The most prevalent types of accident are cuts, falls, strains, bumps, infections, and burns. Falls and strains cause the greatest loss of time and money.

To aid you in watching for and correcting them, the common

hazards are considered here in relation to the five definite but closely related functions of restaurant operation in which they occur:

1. Receiving and storing food supplies.
2. Preparing foods for cooking.
3. Cooking and baking foods.
4. Serving foods.
5. Clearing tables and washing dishes.

Consideration should also be given to hazards arising out of the handling of machines and other electrical equipment, miscellaneous hazards to employees, hazards to the public, and fire hazards.

Receiving and Storing Food Supplies

Handling food supplies is not easy or light work since products are received in almost every type of container—barrels, crates, drums, bags, cartons, trays, racks, boxes, and special commissary food containers. With such a variety of sizes, shapes, and weights to handle, persons doing this work are likely to suffer strains. In addition there are the hazards from unsafe piling of goods, the danger of falling when reaching for something on a high shelf, and the cuts, splinters, and scratches from opening containers.

1. Maintain good housekeeping so as to make it possible to quickly locate supplies and foodstuffs, and to reduce the hazard of fire.

2. Use adequate and safe ladders for obtaining materials from storage.

Preparing Foods for Cooking

Preparing foods for cooking or baking includes such diverse operations as washing and peeling vegetables and mixing cake and muffin batter. Cuts and falls are the types of accidents occurring most often here; while bread-slicing and meat-slicing machines cause occasional serious injuries.

1. Care should be used in handling sharp tools since the majority of cuts are caused by knives. Safe practices include:

- (a) Keep knives sharp.
- (b) Use the right knife for the job.
- (c) Cut away from the body.
- (d) Don't "palm" vegetables or fruit and then attempt to cut.
- (e) Keep knives in racks when they are not being used.
- (f) Don't use knives to open cans, jars, or other containers.
- (g) Never leave a sharp-edged tool lying loose so that it

is likely to be covered over and then cause a cut later when whatever covers it is picked up.

(h) Have handles repaired or replaced as soon as they are loose or broken.

(i) Remove steel particles from knives after they are sharpened.

(j) If a knife falls, don't grab it — get out of the way.

2. Pieces of vegetable, fruit, or any other spilled or dropped material should be cleaned from the floor immediately. Wet floors should receive frequent mopping. Keep floors as dry as possible.

3. Food containers, pans, and pails should be kept where they will not be tripped over.

Cooking and Baking Foods

Burns and falls are the accidents which give the most trouble in this part of restaurant operation. Spattering fat, hot handles, steam kettles, ovens, and broilers all contribute their share of burns.

Safe practices include:

1. Handles of cooking utensils should be turned parallel to the front of the range and not allowed to protrude over the edge.

2. Dry pads should be used when handling hot utensils.

3. When containers of hot food are removed from the range they should be placed where they will not be tripped over or spilled.

4. Before removing containers of hot food from the range decide where you are going to set them and be sure that no one is passing.

In removing heavy containers, have adequate assistance.

5. Ventilate the oven for several minutes before lighting it. When striking a match to light an appliance, strike it in a direction away from your clothes or other flammable material — then place the match at the gas jet before turning on the gas. Turn the gas on gradually so as to avoid "blowing out" the match or wick.

6. Inattention causes many of the oven and steam kettle burns. Hot steam pipes should be covered with asbestos lagging when there is any chance that they might be contacted by employees.

7. It is difficult to keep kitchen floors free from grease. Many restaurants sprinkle sawdust or salt on their floors but these are only partially effective. One of the most effective nonslip substances which can be used is powdered feldspar. Better still, wipe up spilled grease immediately.

Serving Foods

Burns, bumps, and falls are the three most common types of accident in serving food. The reasons for these injuries are many but the outstanding one is unnecessary hurrying, coupled with inattention. Employees collide and spill hot food on themselves and others. Spillage often goes unnoticed and someone slips and falls. Careless mopping of the floors also causes many falls.

Safe practices include:

1. Traffic between kitchen and dining room should be carefully arranged so that employees coming into the kitchen will not have to cross the paths of those leaving the kitchen for the dining room.

2. There should be double doors between kitchen and dining room, one door to swing in to the kitchen and the other door to swing out from the kitchen. They should be plainly marked "in" and "out" and fixed so that they can swing only in the desired direction. Should there be space for only one door, a window should be cut through the door to enable a person coming through the door to see others approaching.

3. Running and unnecessary hurrying should not be allowed.

4. Employees should not stand on wobbly chairs, broken step-ladders, or other insecure footing when making coffee or when reaching for something on the higher shelves or on top of cupboards.

5. Employees handling hot liquids from urns and containers should be instructed to move carefully to prevent collisions with other employees, and to give a warning when passing behind anyone handling hot liquids.

6. Individuals bringing in hot food replacements for steam table service should give proper warning and pass behind the servers.

7. Steam burns often result from the changing of food trays in the steam serving table. The following procedure is recommended for handling trays: Use a fork in the right hand for prying; take firm hold on the opposite side with the left hand, protecting this hand with a dry towel; then lift the tray straight up so that the steam will rise directly upward and not toward the individual. Handle trays from electrically heated tables with the same care even though there is not the danger of a steam burn.

8. Spillage should be cleaned up immediately. Only a small area of floor should be wet-mopped at one time, and it should then be dry-mopped.

9. Low heeled shoes should be worn. The heels should be kept in good condition.

Clearing Tables and Washing Dishes

This work results in many types of injuries, but the outstanding ones are strains, falls, cuts, and infections.

Employees scraping and sorting dishes for the dishwasher or dishwashing machine receive cuts from broken and chipped glasses and dishes. Careful handling and sorting of dishes, glasses, and silverware will eliminate most of these cut injuries. Since these workers have their hands wet most of the time, cuts and abrasions, if not cared for properly, often become infected. Harsh washing soap and disinfectants also attack their hands, causing skin to crack and to become infected easily. Dermatitis may result when a particular employee is found to be allergic to the washing compounds used.

Safe practices include:

1. Instructions should be given and strictly enforced to see that trays are not overloaded or improperly stacked.
2. Some restaurants use movable trucks with shelves for dish trays. This saves lifting and carrying these trays to the kitchen for washing.
3. Handling of glasses:
 - (a) Use a glass brush to wash glasses and avoid rim chip cuts.
 - (b) Do not stack dirty glassware in the bottom of the dish water.
 - (c) Wash glasses, china, and silverware separately.
 - (d) When glass is broken in wash or rinse water, drain the sink at once and remove the broken glass with a dampened paper towel.
 - (e) Remove soda and sundae spoons from glasses when placing on the sink.
 - (f) Sweep up broken glass from the floor. Do not use fingers.
4. Floors around dishwashing operations should be kept mopped dry; where duck boards or mats are used, they should be washed and dried daily and kept in good condition.
5. Close and frequent inspection should be made of dishwashers' hands to check for cracking skin and infections. Hand creams applied after work have proved beneficial. If possible, dishwashers should be allowed to do some other type of work until cuts are healed.

Machine Hazards

There are a few machine hazards involved in some of the functions of restaurant operation. Bread and meat slicers have caused

most of the serious injuries, not because of the lack of guards but rather because of the improper, inexperienced, and careless operation of these machines. Provision should be made for regular inspection of equipment to make sure that it is in good working condition, properly adjusted, and completely protected by the necessary safeguards.

Employees should be given special instruction on the job to make sure that they understand how to use mechanical equipment. Employees should be further instructed to use only those machines for which they have been qualified by their supervisor.

In the restaurant of average size the following machines are usually found:

1. *Mixers*. This machine has a bowl with a beater or mixing arm running down into it. One type has a bowl which rotates; the other model has a stationary bowl and a moving beater head. With either type it is dangerous to put one's hand into the bowl when the beater is in motion. Manufacturers have recently developed guards that are satisfactory from both a sanitary and an operating point of view. Employees should be properly instructed in the use of these guards and such use should be mandatory.

2. *Meat slicer*. This machine has a rotating circular knife. The meat is held by means of a toothed clamp on a feeder which is operated either by hand or automatically by the machine, so that the face of the meat passes through the knife blade, slicing the thickness which has been set on the gauge. The gauge on this type of slicer serves as a partial guard. Accidents happen when employees use their hands instead of the clamp to hold short ends of meat or vegetables being sliced. Also, injuries are sustained when the slicer is being cleaned. It is urged that the plug be pulled on an electric machine and that the gauge be turned to zero. This position will close the blade on most machines. Care should be taken so the hand does not contact the edge of the cutting blade. The blade should be cleaned from the center out and a protective cloth should be held in the other hand to rotate the blade.

3. *Bread slicer*. As with any slicing machine, care must be exercised when using the bread slicer. Use push stock to shove the end piece through. If any of the bread slices get stuck, turn off the machine before attempting to salvage them. Operators should be given explicit instructions to shut off the slicing machine and wait for it to stop coasting before clearing bread ends away from the blade. A "cripple" loaf or a push stock can be used to shove the last slice through.

4. *Grinders*. Meat and food grinders should be equipped with

long narrow necks making it impossible to reach the cutter with the fingers. A wooden pusher should be used to force material into the grinder.

5. *Vegetable peeler.* There is nothing particularly hazardous in this machine's operation. It works somewhat on the same principle as a washing machine. The vegetables are whirled around in a covered metal bowl until their skins are rasped off by the rough sides of the bowl.

6. *Dishwashing machines, pumps, carbonators, fans, and refrigerating units.* These do not present any outstanding hazards. Care should be taken that exposed gears, chains, sprockets, belts, and pulleys are guarded where there is any chance that they might be contacted by employees.

Hazards from Electrical Equipment

1. It is difficult to keep restaurant kitchen floors dry because of spillage, steam condensation, and melting ice. For this reason it is important that electric fixtures and apparatus be protected.

(a) The frame of all electrically operated machinery should be grounded. This can usually be done easily by attaching a wire to the frame of the machine and then to a good ground such as a water pipe or grounded conduit.

(b) Brass electric-light sockets within reach should be replaced with sockets of nonconducting material such as rubber, bakelite, or porcelain.

(c) Nonconducting links should be inserted in brass pull chains.

(d) Extension lights should be equipped with rubber handle sockets and lamp guards. The cords should be of approved rubber covered type.

2. When replacing lamp bulbs on portable lights, the cage guards should always be replaced.

3. Prompt repairs should be made to any electrical equipment from which a "shock" is felt.

Miscellaneous Hazards in Work Areas

1. Where machine-driven dumbwaiters are in use, a warning bell should be arranged which will ring as the dumbwaiter approaches the landing. The ideal set-up is to have a door on the landing which must remain shut until the dumbwaiter is at the landing, but few restaurants have this arrangement because it slows up their service.

2. The average-sized restaurant does not have an extensive refrigeration system, but one may be found in a large establish-

ment. In such cases adequate protection should be provided for the type of refrigerant used.

3. Stair treads are very likely to become greasy and slippery. Metal safety treads containing carborundum have been found very satisfactory under restaurant conditions. Mastics with nonslip properties have been found satisfactory for repairing treads.

4. Soap receptacles should never be located over the center of the wash basin because an employee, after bending over to wash his face or hands, may get a bad jolt as he straightens up suddenly.

5. Under certain conditions hot-water storage tanks may explode. A safety valve should always be provided on the hot-water tank to release the excess pressure that may form.

Public Liability Hazards

Injuries from defective equipment and falls are the two most costly public liability hazards.

Spilled food or water, tracked-in rainwater and snow, and poorly mopped floors are the main causes of customer falls.

Injuries from defective equipment come from splinters in tables and chairs, chips in glass counters, stools and chairs which collapse, and splinters in entrance doors.

To minimize these risks, the restaurant operator should observe the following rules:

1. Chairs and tables with broken parts, splinters, rough edges or loose joints should be removed from service and reported.

2. Food which is spilled on the floor should be mopped up immediately.

3. Where there is a drinking fountain there usually will be a wet floor around it. This area should be mopped often.

4. The area inside the entrance door should be mopped frequently during rain and snowstorms. Some restaurants lay rubber mats on the floor in bad weather.

5. When a dish of food is dropped, a chair should be placed over it, and an employee should stay with it until someone else brings mop, broom, and pan.

6. Only a small area of floor should be wet-mopped at one time, and this should then be dry-mopped immediately. Some restaurants have one employee using the wet mop and another employee following closely behind applying the dry mop. This not only speeds up the mopping operation but prevents customers from walking on the wet-mopped floor before it has been dry-mopped. Another method is to "rope" off an area by arranging chairs and tables to keep customers from entering the area being mopped.

7. All defects in the carpet or other floor covering on which a customer or employee may trip should be repaired promptly.

8. Do not hand cups, bowls or plates containing hot liquids or foods directly to guests. Warn the guest of hot dishes and place the dishes at their place or on the serving counter for them to pick up. Protect food from foreign particles. If you break an article near open food containers, immediately report this so that food can be removed from service.

Fire Hazards

There is, of course, always the danger of a fire breaking out in a restaurant, with consequent damage to furniture and equipment, as well as serious injury to employees and guests. The restaurant proprietor should take steps toward the elimination of fire hazards and practices on the part of employees likely to lead to fires.

Small restaurants should have at least two exits; large establishments should have a sufficient number of exits to permit all customers and employees to leave the building within a few minutes.

Know the fire exits and use them, and show them to guests should the need arise.

All exits, including stairways, fire escapes, horizontal exits and doors, should lead to a street, alley or open court connected with a street. All such exits and all passageways leading to and from such exits should be kept in good repair and unobstructed at all times.

Waste paper, rubbish or excelsior should always be kept in the proper receptacle, and should be disposed of promptly. Trash should never be allowed to accumulate around electric motors or machinery, against steam pipes, or within 10 feet of any stove or boiler, or in any place where inflammable petroleum products are used or stored.

Restaurant personnel should not neglect to pick up matches or other articles which might cause a fire.

Combustible walls, partitions and ceilings less than 24 inches distant from a range should be protected with at least $\frac{1}{4}$ inch asbestos board covered with galvanized sheet metal, or protected with a metal shield with at least 4 inches of air space behind it. If the range is less than 12 inches from the wall, partition or ceiling, then the woodwork should be cut away and replaced with incombustible material.

Smoke pipes and hot-air pipes passing through nonfireproof

partitions should be encased with at least 4 inches of incombustible material.

All defective pipes, tubes, valves, joints, tips, jet fixtures, or other installations connected with gas lighting or heating systems should be repaired or replaced.

Because of the danger of a small fire becoming serious through the breaking of gas pipes in the building, the gas supply line should have a service cock outside of the building, so placed and maintained that it can be shut off by the fireman.

Every proprietor of an eating place should consult his local fire department concerning the type of fire-fighting equipment that can be kept on the premises. Such equipment should at all times be kept in good condition and easily available.

Decorations of paper, cotton, cloth or other combustible materials should never be attached to electric light wires, globes or fixtures, nor within 3 feet of any open light. Such decorations should be treated with approved fire-proofing material.

Electric cords should never be hung on, be fastened with, or come into contact with nails, staples, hooks, gas or water pipes, machinery or other metal supports.

Wires and lamps should at all times be kept free from contact with curtains, furniture, boxes, packing cases, barrels, machinery, posts, and other fixtures. A wire bulb guard should be affixed to all bulbs in areas where they may be close to stored materials; or may be bumped during handling of stock.

An approved service cut-out switch, in a metal cabinet, should be provided inside at an accessible point near where the wires enter.

Major installation of electrical materials, fittings or fixtures should not be made nor materials or work paid for until approved by the city electrician or some other official charged with the duty of inspection.

Employee Training in Safe Practices

It is not enough to correct hazards and to draw up rules for safe practices. You must train employees to follow the rules.

Every employee should be instructed on his first day at work in the hazards connected with doing his job and the safe practices which will prevent injury to himself and others. This initial instruction should be followed up by constant reminders, by employees' meetings, and by safety posters and movies.

From national and local safety councils, from State and municipal departments of labor, and from the representative of your

insurance company you can obtain attractive and colorful posters, cartoons, and other material showing the need for safety rules and the methods by which accidents can be prevented. It may also be possible to obtain slide films from a number of sources. For instance, some equipment manufacturers furnish films, posters, and personal instructions for employees on the safe operation of their equipment. And in many communities, classes in food handling and accident prevention are given by the local health department and restaurant associations.

Arrange with your local American Red Cross Chapter to instruct your employees in first aid training. It has been found that such training greatly increases the employees' awareness of accident hazards and injury potentials. It also provides an invaluable training that may be applied while away from the job, too. The employee must be cautioned against providing other than immediate emergency care before the services of a physician can be obtained. This is particularly important when guests are injured or ill.

CHAPTER XII

RECORDKEEPING

Importance

Restaurant operators often question the necessity or value of keeping records. They express their views as follows: Why keep a lot of complicated records? I can see what's going on in my business—I'm here every day. Anyway, I'm so busy operating my restaurant I don't have time for keeping records. Besides, I don't know anything about it.

Studies made by the Department of Commerce and by private groups show that many of the small restaurants that fail either have inadequate records or none at all. If the average proprietor is so well posted on the condition of his business, why does this condition appear?

Records need not be complicated. They can be simple and easy to keep, so that they require little of your time. But business success and good recordkeeping go hand in hand. How does the keeping of records lessen the possibility of failure and increase the chances of staying in business and earning profits? Briefly, a simple but adequate system will furnish answers to such questions as:

How much business am I doing?

How much net profit did I earn?

How much were my food costs?

How much were my true payroll costs?

How much were my other expenses?

What is my investment in the restaurant?

What are the trends in my sales, expenses, and profits; in other words, how is my restaurant progressing from year to year?

How much stock (inventory) do I have on hand?

How much money do I owe my wholesalers and others?

How much cash do I have on hand and in the bank?

How does my restaurant compare with other restaurants of the same type?

With answers to these questions available, you know when something is wrong; you know where the unfavorable condition has developed—whether in total sales, sales prices, food costs, payrolls or expenses—and you are in a position to do something about it.

Some restaurant owners, instead of keeping the records themselves, employ on a part-time basis a public accountant specializing in accounting for restaurants. All you need to do is to keep, on forms provided by the accountant, a daily record of such items as the cash register readings, cash on hand, bank deposits, cash pay-outs and checks issued. These forms are sent to the accountant once each week or month. From them he prepares the records or the financial statement. Usually the cost of such a service is reasonable. The following pages are merely illustrative of the scope and importance of proper recordkeeping. Each individual business will use a system prescribed by a competent accountant.

The daily records for any restaurant should reflect the daily activities in the business, such as cash received from food sales and from other sources, payments for food and expenses, payments on loans, and purchases of equipment. Many systems are in use which get the same results, and they may be varied according to the needs of the individual restaurant.

Safeguarding Cash

Some records help to guard against loss of cash receipts through theft, errors in making change, or failure of a guest to pay his check.

Serious problems arise in connection with cash shortages. It is the proprietor's responsibility to place proper safeguards about his cash. A cash register, together with the cash records discussed in this chapter, is one of the safeguards.

Cash register. A cash register is recommended for every restaurant. Besides being a reasonably safe place to keep money during the day, it records each sale and totals the sales as well as the number of checks rung up. Many cash registers also certify the guest check by printing the amount rung up in the register on the check. Other registers accumulate separate totals for food, cigars and cigarettes, paid-outs, and the like.

Cash payment vouchers. Paying for some purchases and expenses from the cash register is a customary procedure in the restaurant business, but it is essential that a receipt be placed in the register for each amount of cash removed. The petty cash voucher is the simplest type of such receipt. When no receipted bill is given by the vendor on delivery and payment, a voucher is made out showing the date, amount, item of purchase or expense, initials of person paying, name of firm, and signature of person

receiving the money. The original is filed by the owner and the duplicate given to the vendor. A standard form for cash payment vouchers may be purchased in pad form. A typical voucher is shown.

PETTY CASH VOUCHER

Date_____19

Pay to_____

For_____

\$_____Cents

Signed_____

WAITER	PERSONS	DATE	CHECK	ROOM	TABLE
			431499		
DEDUCTIONS					
FOOD	BEVL RAGES	CIGARS			
F 567					
WAITER	CHECK	431499			
WAITER'S RECEIPT			DO NOT PAY THIS STUB		

Guest check. A guest check, sometimes called a guest order, provides the record for the service of food and collection of cash. The check contains space for the order and the correct amount to be paid by the customer. Order books should be serially numbered so that all checks may be accounted for. A form of guest check is illustrated on bottom of page 175.

Daily proof of cash. Cash is proved at the end of each day when the register is emptied and the cash register report is made, regardless of the number of times during the day that a cash register reading may be taken. Steps in making the daily proof of cash and cash register report are as follows: (Line numbers refer to the daily cash report shown on p. 177).

1. Take a reading of sales and customer count from cash record on lines 1 and 12. Your cash register readings should be cumulative. The machine should be factory-sealed so readings cannot be turned back to zero each day.

2. If sales tax is rung up on the register together with sales, it should be deducted as shown on line 2 and from cash taken from register. (Note: Many operators use gross receipts, that is, sales plus sales tax, not separated as indicated here—See Chapter XIV.)

3. Total of cash placed in the register at the beginning of day for a change fund or added to the register during the day should be listed on line 4.

4. Net sales (line 3) should be added to cash on hand beginning of day (line 4) to determine the total of cash to be accounted for (line 5).

5. In the section headed Record of Cash Paid Outs, list payments made from the register as per receipted bills or invoices and cash payment vouchers, and total at the bottom of form at the right. The total amount is entered on line 6. As most registers provide a key for recording paid outs, the number and amount of vouchers listed should be compared with the number and amount rung up on the register.

6. If a bank deposit is made during the day, from the current day's receipts, the amount should be entered on line 7. (Making bank deposits in this way, however, is not recommended; this matter is discussed later in the chapter.)

7. Count the cash in the register, place in bag, and record on line 8.

8. Total lines 6, 7, and 8: This amount is the total of cash on hand and money paid out. Enter this total on line 9.

9. If the amounts in the two columns, that is, the totals on lines 5 and 9, are not equal, the difference is recorded as cash over or cash short on line 10 or 11. (If the amount on line 5

June 29, 1956

June 29, 1956

①	Register reading	\$133.88	xx	xx	Cash paid out	12	10	⑥
②	Less sales tax	2.63	xx	xx	Bank deposit			⑦
③	Net sales	131.25						
④	Cash beginning of day	20.00			Cash end of day	138	95	⑧
⑤	Total	151.25			Total	151	05	⑨
⑩	Cash over				Cash short	20		⑪

RECORD OF CASH PAID OUT

TO WHOM PAID		FOOD	CIGARS and CIGARETTES	OTHER EXPENSES AMOUNT EXPLANATION	
J. H. Jones & Co.		11 15			
A. R. Smith				65	Lice
Jackson & Co.				30	Knives sharpening
		11 15		95	
<u>Weather - Clear and Warm</u>			Foods		11 15
(12) Number of Customers	175		Cigars + Cigarettes		
Breakfast Lunch Dinner			Other Expenses		95
25	100	50			12 10

(Signed)

John Jones

exceeds that on line 9, there is a cash shortage, while if the total on line 9 exceeds that on line 5, there is a cash overage.) In either instance, the actual cash on hand is recorded in the cash-book.

10. The person proving cash and making up the report signs it.

Bank deposits. Another help in safeguarding the cash is to deposit in the bank all money taken in. Each morning, or every

second or third morning, if that is the practice, you should take the cash receipts for the previous day or days and deposit the exact amount in the bank (having left enough money in the cash register to make change). If the receipts were \$200.04, a deposit should be made for \$200.04, not just for \$200. Bankers recognize such a practice as the mark of a good businessman.

Payments by check. It is not essential that all payments be made by check, but there are good reasons why this should be the policy. Probably the most important is that the canceled check, marked paid, and carrying the creditor's name on the back of it, serves as a receipt. In order that there can be no doubt as to which bills have been paid by any one check, the date of the invoice, or the invoice number, or other means of identification should be noted on it. On the invoice also a notation should be made, such as paid by check No. 706.

Payments by cash. While the pay-by-check system is recommended for the restaurant that can maintain a good bank balance, the restaurant whose balance is frequently small may have to operate entirely on a cash basis. In this case, a safe is needed to take care of the funds on hand. And since sales are for cash only, the owner will have ready money to pay for deliveries when they are made. Also he will accumulate enough money for the weekly payroll and for monthly bills, such as utilities. Payments to out-of-town creditors can be made by means of money orders.

The Cashbook

A large part of the restaurant operator's sales dollar is paid out for food, most of the remainder goes for expenses, and only a small part of it becomes net profit. Unless you keep a record of your income and expenses, you cannot know whether you are running a profitable or an unprofitable restaurant. The cashbook illustrated on p. 179 provides a simple and easy means of keeping a record of what happens to every sales dollar.

Ten-column standard paper with side perforations to fit in a cover can be used for this cashbook.

The form used has a date (Col. A) and an explanation column (Col. B) to the left followed by 10 money columns. Headings are written or printed in ink or typed on each page, since the cost of having them printed by machine is usually too high. The money columns are explained below.

Column 1. Cash receipts. This represents total cash received from sales for the day. The source of the entry is the daily cash report which shows the actual cash taken in. Other cash receipts, such as investments or loans by owners, are also entered here.

LINE	DATE	EXPLANATION	CASH		FOOD PURCHASES	SALARIES & WAGES		OTHER EXPENSES			OTHER PAYMENTS			SALES TAX
			RECEIPTS	PAYMENTS		NET PAID	DEDUCTIONS	AMOUNT	EXPL.	ACCT. NO.	AMOUNT	EXPL.	ACCT. NO.	
1	5/1	Cash balance forward	2,400											
2	5/1	Sales	250											2.60
3		Cash purchase		25.	20.			5.	Advt	76				
4		A.B. Market		37.	37.									
5		Payroll		100.		85.	15.							
6		C.D. Laundry		12.				12	Laun	73				
7		E.P. Hardware Co.		50.							50.	Kitch Equip	22	
8														
9														
10														
11														
28														
29														
30														
31														
		TOTALS												
	5/31	Cash balance forward	2,500											

Column 2. Cash payments. This represents the total cash or checks paid out. This total cash is broken down by categories and distributed in columns 3 through 9. The line total of the distributed figures must equal the amount in column 2.

Column 3. Food purchases. All payments for food are recorded in this column in total whether paid by cash or check. The receipted bills and cash payment vouchers are added and the total is entered under food purchases for the day. Many restaurants sub-divide this figure into such categories as: Meats, fish and poultry, dairy, bread and pastries, vegetable and fruits.

If there is a discount allowed, the net amount, that is, the total less the discount, is recorded.

Columns 4 and 5. Salaries and wages. Column 4 represents the salary paid the owner and the employees after tax and other deductions. The amount for the owner's salary is taken from a cash payment voucher or from the checkbook, while the amount for wages paid employees is found on the payroll or on the summary of employee's earnings.

The entry in column 5 is the amount deducted for social-security taxes, withholding tax, and similar deductions. Tax monies will be paid to the Federal and State governments.

The cashbook would not balance at the end of the month if Column 5 were not used since the entry in column 2 is the gross amount of wages, and represents the total amount paid to employees or withheld for payment of taxes.

Columns 6 and 7. Other expenses. Column 6 is used to enter payments for all expenses except food, salaries, and wages, while

column 7 is for the name or number, or both, of the classification of expense as found in the chart of accounts. (An explanation of the chart of accounts and of the account numbers is given below.) Entries are made from check stubs, receipted invoices and bills, and cash payment vouchers attached to the cash register report.

Columns 8 and 9. Other payments. Columns 8 and 9 are for payments other than current expenses, such as installment payments, purchases of new equipment other than replacements, owner's withdrawals other than salary, and so on. Column 8 shows the amount, and column 9 the explanation and account number following the classification in the chart of accounts.

Column 10. Sales tax. This represents cash collected from the customer for sales tax. The entry is made daily or periodically. As this money is kept separate, the total is not used when proving cash.

At the end of the month, the total of column 10 should equal the cash in the sales-tax fund.

Chart of Accounts

The chart of accounts, which was mentioned previously, shows the headings or names under which all entries in the cashbook will be classified. Accounts are listed under seven classifications, such as current assets, fixed assets, and current liabilities, with the first classification assigned numbers 1 through 10; the second group numbers 11 through 20, and so on. Though all numbers assigned to the groups may not be used when the system is set up, they are available for additional accounts as needed.

Numbers may be used instead of account names, especially when recording transactions in the Other Expense or Other Payments columns in the cashbook. Therefore, the chart of accounts should be in typed form and kept in the front of the book in which entries are made.

A suggested chart of accounts, together with numbers for these accounts, which can be used by a small restaurant is shown:

Chart of Accounts

<i>Balance Sheet Accounts</i>	
<i>Current assets</i>	
1. Cash (on hand and in bank)	13. Small kitchen equipment
2. Food inventory	14. China, glass, silver, linen
3. Deposits with public utility company	15. Office furniture and equipment
	18. Real estate
<i>Fixed assets</i>	<i>Current liabilities</i>
11. Large kitchen equipment	21. Accounts payable (Incl. taxes)
12. Dining-room furniture and fixtures	22. Installment accounts and notes payable

Proprietorship or net worth

- 41. Owner's capital
- 42. Owner's personal or drawing

Income and Expense Accounts

Income

- 51. Sales

Food cost

- 61. Purchases, food

Operating expenses

- 71. Salaries and wages

- 72. Rent
- 73. Laundry and linen
- 74. Supplies, cleaning and paper
- 75. Utilities and water tax
- 76. Replacements, repairs, and maintenance
- 77. Depreciation
- 78. Advertising
- 79. Taxes and insurance
- 80. Miscellaneous expense

Following is an explanation of what items should be included in each account:

Current assets

- 1. *Cash*: On hand: currency (paper and coin), personal checks, travelers' checks, money orders, bank drafts or checks; in bank.
- 2. *Food inventory*: Food on hand in stores or storeroom, refrigerators, counters, pantries, and kitchen.
- 3. *Deposits with public utility companies*: A deposit to cover 2 or 3 months' estimated gas and electricity consumption is required by most public utility companies. This amount is returned on termination of the service.

Fixed assets

- 11. *Large kitchen equipment*: Automatic mixer, cook's and other preparation tables, dishwashing machine, hood, ovens, pot rack, potato peeler, refrigerators, sinks, stoves, ventilator, water cooler, etc.
- 12. *Dining room furniture and fixtures*: Chairs, counters, booths, curtains, electric light fixtures, mirrors, tables, etc.
- 13. *Small kitchen equipment*: Kitchen utensils, serving utensils, trays, etc.
- 14. *China, glass, silver, and linen*: All service ware; salts and peppers; creamers and sugar bowls; silver knives, forks, and spoons; uniforms; towels; tablecloths; napkins, etc.
- 15. *Office furniture and equipment*: Adding machine, cash register, desk, duplicating machine, file, safe, typewriter, etc.
- 18. *Real estate*: Land and building, if premises are owned instead of leased.

Current liabilities

- 21. *Accounts payable*: All expense bills and invoices of goods owed by the business to outside firms or individuals due in 30 days or at end of month.
- 22. *Installment accounts, or notes payable*: Unpaid portion of contracts on large equipment bought on the installment plan.

Net worth or proprietorship

- 41. *Owner's net worth*: Owner's permanent investment in the business plus net profits minus net losses.
- 42. *Owner's personal or drawing*: Any money taken by the owner from the business in addition to his regular salary, such as loans, is subtracted from owner's net worth in setting up a balance sheet. Any money loaned temporarily to the business by the owner is added to the owner's net worth in setting up a balance sheet.

Income

51. *Sales*: Meals served, food sold to take out including delivery charges, special catering of all types, vending machine sales, or income from any other source.

Food cost

61. *Food purchases*: Food bought less any discounts, returns or allowances.

Operating expenses

71. *Salaries and wages*: Managerial services (wages paid to the owner), accountant's fees, and cash wages of all workers not on a salary basis.
72. *Rent, or occupancy*: Rental of buildings, rooms, kitchen, or any space used in the preparation and service of food. When the building is owned by the operator, all expenses which would ordinarily be the landlord's responsibility will be recorded as rent, or occupancy. Such expenses are real-estate taxes, depreciation of building, insurance, interest on mortgage, and any other costs which definitely pertain to the building.
73. *Laundry and linen*: Initial cost and rental or laundry only of all linens, aprons, coats, uniforms, towels, etc.
74. *Cleaning and paper supplies*: Cost of all supplies—cleaning, paper, office, and miscellaneous—used in the conduct of the business.
75. *Utilities and water tax*: Bills for gas, electricity, telephone, and water tax.
76. *Replacements, repairs and maintenance*: Repair work on building, plumbing, equipment, machinery, furniture, and purchases to replace lost or broken items of all types of *small* equipment, such as china, silver, uniforms, towels.
Purchases of larger items of furnishings or equipment are not charged to the operating expense for the current month, but are capitalized by adding the cost to the appropriate assets owned by the restaurant, that is, their cost is added to account number 11, 12 or 15.
77. *Depreciation*: An expense charged each month for wear and tear, obsolescence, etc., on fixtures and equipment. (See discussion in Ch. XV, for methods of arriving at amount to be charged.)
78. *Advertising*: Amounts spent for newspaper or printed advertisements, signs, printed menus, and matches or other articles for distribution to guests.
79. *Taxes and insurance*: Fees for operating a business, taxes for selling certain items, social-security taxes paid by the employer, workmen's compensation insurance, employer's and public liability, fidelity, fire, group, plate-glass, robbery, and other insurance. In case of ownership of building, property taxes are charged to account No. 72. Income and sales taxes are not included here, nor are the social-security taxes and withholding taxes which are deducted from employees' wages.
80. *Miscellaneous expense*: Expenses that do not go into any of the above accounts should be classified as miscellaneous, for instance, charity and donation, memberships in local organizations, and telegrams.

CHAPTER XIII

FOOD-COST RECORDS

Every restaurant operator is vitally interested in food cost and its relation to sales. In a very small eating place, in fact, in a restaurant of any size that is conducted entirely on a cash basis, you may use the food purchases as your approximate food cost for a given day. This does not give an exact picture, of course, since all foods are not always used on the day of purchase, but over a weekly or monthly period it does furnish a good working guide.

Certain control records, such as order forms, a purchase record and a physical inventory, are needed by every operator. Others may become necessary as the restaurant grows in size or as the proprietor sees the need of careful control of the materials which make up his business.

This chapter presents a food-cost-control system. The information it furnishes can be used as a guide for many aspects of food purchasing, menu making, production, and service.

Menu Sheet, or Menu Book

The menu is the core of any food service organization and the menu sheet, or menu book, becomes the blueprint from which the food is purchased, prepared, and sold. It is important that you set up a menu pattern covering a period of at least 1 week. Thus, you can add or adjust with ease, keeping the over-all effect always in view. A large sheet, with the days of the week heading the columns and the menus for the different meals served listed in the columns, is suitable, or a notebook may be used.

For reference as to amounts needed to yield a given number of portions, a card file of individual purchase items and a recipe file, such as the one mentioned in Chapter VIII, may be used.

Ordering

Staples. To make up an order for staple foods, keep a want list on the desk and jot down the items needed. Then, before placing the order, make a physical inspection of food supplies on hand.

Fresh foods. Fresh foods deteriorate rapidly; therefore, the kind and quantities ordered should be for immediate use as indicated on your menus. A market list is made up before telephoning or going out to shop and the prices are filled in when the purchases are made. A market list tends to control buying to fit your planned needs, which in turn has its effect on the food cost.

Recording Purchases

Checking invoices. When food is received it should be carefully checked against the market list of the items ordered as well as the invoice, and notations made on the invoice of any items not ordered, damaged, defective or missing. Prices should be checked, the cash discount, if any, computed, and the net amount to be paid written at the bottom. If any goods are returned or allowances made, this should be shown on the invoice. A request for credit should be made to the purveyor, who will issue a credit slip, which should be attached to the invoice. Shipping charges, if any, should be verified before the invoice is marked "O. K. for payment" and filed in the unpaid section of the invoice file.

Filing invoices. Every restaurant operator should have a filing cabinet. The invoice file should be divided into two sections—one for unpaid bills and one for paid bills. As invoices are paid, they should be moved from the unpaid to the paid section.

Paying invoices. The total of all invoices in the unpaid section of the file is the total amount that you owe. By going through this section you can quickly prepare a list of creditors showing the amount due each.

You should establish a policy of paying each invoice in full rather than on account. Paying for specific invoices helps both the operator and the purveyor to keep their records straight—each check is a receipt covering specific invoices, and the amount due any one purveyor is more easily determined.

After each invoice is paid, and before it is filed in the paid section, it is entered in the cash book.

Purchase record. A purchase record showing purchases by items is a sound business record, particularly if you compute your daily food cost from your daily purchases. For the restaurant that has a limited menu and purchases only a few items, a small card file or purchase record book may be adequate. As purchases increase, a separate purchase record file may be used for staple foods, another for perishable foods, and others for non-food supplies and small equipment such as china, glass, silver and linen.

Entries are made in the purchase record from the invoices after the latter are approved for payment. Any entry consists

of date, vendor, brand or description, amount purchased, unit cost and total cost.

Daily Food Cost Report

The daily food cost report is the final and most informative step in the meal service cycle from menu planning through food production and sales.

There are many kinds of food cost reports. The simplest one is made up from the totals of the storeroom and refrigerator requisitions and direct purchases for the day.

Food items issued from storerooms by requisition are priced and extended at the end of each day. Some restaurants have found it expedient to mark the unit price on all storeroom items as they are received and stored, thus simplifying the accurate pricing of the requisitions when the food is issued. Those foods that are generally purchased and consumed within a day or two are generally classified as direct purchases and are not requisitioned. The daily purchase total of the direct purchases may be taken from the purchase record file which would be classified separately from the "requisitioned foods" that were purchased.

The total of all these amounts gives the cost of food for the day. The day's sales are obtained from the cash register report and entered on the food cost report. Then the food cost in relation to sales for the day is calculated. This ratio is called the food cost percentage.

Daily Food Cost Report

Number of Customers	200	Date	June 6
Average Sale	\$0.75	Day	Wednesday
Weather	Fair		
<i>Issues</i>	<i>Today</i>	<i>To Date</i>	<i>Last Month To Date</i>
Storeroom	\$ 13.50	\$ 94.50	\$ 89.00
Refrigerator	5.50	27.50	23.00
Direct purchases:			
Meats	19.00	114.00	96.00
Poultry	7.00	35.00	36.00
Seafood	3.00	21.00	17.00
Produce	3.00	18.00	14.00
Dairy products	9.00	63.00	57.00
Bread and rolls	4.00	28.00	26.00
Miscellaneous	1.00	6.00	5.00
Total cost	\$ 65.00	\$ 407.00	\$363.00
Total sales	\$150.00	\$1,000.00	\$850.00
Food cost percentage	43.3%	40.7%	42.7%

An example of a simple food cost report appears on p. 185. If, as illustrated, sales are \$150 and the cost of food for the day is \$65, then the food cost percentage is 43.3. To find this ratio in terms of percentage, the cost of food (\$65) is divided by sales (\$150).

The food cost report guides the owner or manager from day to day, so that the food cost result may be compared with what is budgeted or planned. If the planned food cost percentage is 40 to permit profitable operation and each day this rate of percentage is exceeded, then the menu, portions, overproduction and waste as well as other factors must be investigated to determine the cause.

In addition to the daily food cost calculation, the food cost report shows the cumulative totals for the month. The cumulative figures tend to average out the peaks and valleys of a single day's operations and generally give a more accurate picture of the food cost pattern.

The Physical Inventory

A physical inventory is an actual count of stock on hand taken at the end of each month in order to arrive at the accurate cost of food consumed for the profit and loss statement.

It is convenient to use a standard form or inventory book on which the names and descriptions of the food items carried are entered in advance. If possible, two people should take inventory—one calling, the other making the entries of counts and units. If the merchandise unit price is marked on the items, these should be called and entered in the inventory with the counts. Items not so priced should be priced from the purchase record.

Extensions and additions on the inventory should be verified by someone other than the person making them.

Book inventory reconciliation. In those instances where merchandise is issued from a storeroom or refrigerator by requisition, it is a sound control practice to determine the accuracy of such withdrawals by an inventory reconciliation at the end of each month. An example of an inventory reconciliation is presented on page 187.

The month-end inventory reconciliation shows you the value of the food that you should have on hand at the end of each month in your storeroom and refrigerator as measured against what was actually on hand by physical count. Any large differences between the book and actual inventories should be investigated, for it could mean that supplies paid for are not being received or that merchandise is being removed without authorization.

Book Inventory Reconciliation

	<i>Storeroom</i>	<i>Refrigerator</i>	<i>Total</i>
Inventory — Beginning of Month	\$200	\$100	\$300
Purchases for the Month*	1,000	1,300	2,300
<i>Total Charges</i>	1,200	1,400	2,600
<i>Issues</i>			
To the Kitchen	950	1,200	2,150
Sales at Cost	50	—	50
To the Bar	30	20	50
<i>Total Issues</i>	1,030	1,220	2,250
<i>Book Inventory — End of Month</i>	170	180	350
<i>Actual Inventory — End of Month</i> ...	155	170	325
<i>Amount Not Accounted for by Requisition or Inventory</i>	15	10	25

* Do not include "direct purchases".

Meat-tag system. Because meat is the most expensive item on the menu, a tag system is sometimes used to control its storage and utilization. When meat is delivered, it is checked and weighed, and, if it is not used immediately, a tag is attached. On the tag is written the date of receipt, name of the cut, price and weight; a blank space provides for noting the date when the meat is actually used. When the meat is taken from the refrigerator, the tag is removed and the data thereon used in preparing the food cost report. The value of the tag system is that it shows the accurate weight and value of the meat used and it saves time that would be spent in weighing and pricing meat for issue.

CHAPTER XIV

TAX RECORDS

It is necessary for the restaurant operator to keep certain records in order to comply with tax laws and regulations. He must keep records in connection with Federal income, social security and unemployment taxes, and, in a number of States and cities, sales taxes. For the operator who keeps those records which have already been described in the preceding chapters, only a few additional records or changes in existing ones are necessary for tax purposes.

The methods of keeping records and preparing reports in order to meet the present tax requirements are discussed in this chapter. No attempt is made to give advice on the complex tax laws and regulations, or on the different State tax laws. Minor changes in the tax laws are continually made, and at times these change the records and reports required. The discussion in this chapter, however, will show the general nature of the reporting requirements.

Federal Income Taxes

Although it is impossible to discuss here the many complex problems which arise in connection with the preparation of a Federal income-tax return, the restaurant operator who keeps the records that have already been explained will find it a relatively simple matter to make up his income-tax statement. Most of the necessary data, as far as the business is concerned, can be copied directly from the annual profit-and-loss statement. Owners who operate their restaurants as individual proprietorships will use Form 1040. Schedule C on this form which shows the results of the business operations can be filled in by taking the necessary figures directly from the profit-and-loss statement.

If the restaurant is operated as a partnership, the income-tax return for the business will be filed on Form 1065 and if the restaurant is incorporated the return will be filed on Form 1120. The data called for on these forms are similar to those shown on Form 1040. (Note—These form numbers may change.)

Federal Insurance Contributions Act

The Federal Insurance Contributions Act is a tax program providing for old-age and survivors insurance, sometimes called social security. This insurance program is applicable to employers with one or more employees. Thus, if the operator has one employee he must pay this tax and he must keep certain records to enable him to make accurately the reports required under this law.

The F.I.C.A. taxes are $2\frac{1}{4}$ percent each on employees and employers, or a total of $4\frac{1}{2}$ percent, on the first \$4,200 of taxable wages paid each employee during the calendar year. The employer must file quarterly returns by the last day of the month following each calendar quarter.

The amount of wages on which the tax is figured includes the money wage, meals, lodging, or other consideration given in payment for services. Tips paid directly to an employee by customers and not accounted for to the employer are not subject to this tax.

Income Taxes Withheld from Wages

Every businessman who pays wages to one or more employees is required to deduct and withhold specified amounts from the wages of his employees for Federal income taxes. That is, the employer acts as an agent of the Government in collecting income taxes by deducting the amount of the tax from the wages of his employees.

The amount of wages subject to withholding is the money wage, and under certain circumstances, meals, room, and other compensation given by the employer. However, if meals and lodging are provided on the premises for the convenience of the employer, the value of such compensation is not necessarily subject to withholding.

The amount of the tax to be withheld from the wages of each employee depends on the amount of his earnings and the number of his withholding exemptions. Further, the amount of the withholding tax is liable to change each year as the income tax rates change. The amount of income tax to be withheld can be determined from tables prepared and available from the Internal Revenue Service. An Employer's Tax Guide showing the correct amount of withholding tax can be obtained from your local office of the Service.

Every employee is required to furnish his employer with a signed income tax withholding exemption certificate, on Form W-4, which contains the necessary information so that the employer can compute the employee's exemption and the amount of

the withholding tax. On this certificate the employee indicates the number of withholding exemptions to which he is entitled. If there is a change in the employee's status in regard to his withholding exemption, he is required to furnish a revised certificate to his employer.

The employer is required to file quarterly returns (same form as is used for F.I.C.A. taxes) no later than the last day of April, July, October, and January of each year, and remit the amount of tax withheld.

If the total of the amount of income tax withheld plus the F.I.C.A. tax (both employees' and employer's shares) exceeds \$100 for any month, the employer, instead of waiting until the end of the quarter, must deposit the total amount in the Federal Reserve Bank in his district by the 15th day of the following month. Certain commercial banks are also authorized to accept such deposits.

Employers must also furnish each employee with two copies of a withholding statement (Form W-2), by January 31 of each year, showing the amount of wages subject to income tax withholding, and the amount withheld. This form must also show the amount of wages subject to F.I.C.A. taxes and the amount deducted under this law.

Federal Unemployment Tax Act

The Federal Unemployment Tax is a tax imposed upon employers and is not deducted from the wages of employees. The tax must be paid by any employer having 4 or more employees on at least 1 day of each of 20 calendar weeks.

The F.U.T.A. tax is 3 percent of the first \$3,000 of wages paid to each employee during the calendar year. However, the employer is allowed to deduct contributions to State unemployment funds up to 90 percent of the Federal tax. Since most States have unemployment programs, in actual practice most employers pay a net Federal tax equivalent to 3/10 of 1 percent.

The operator subject to the F.U.T.A. tax must file a return by January 31 of each year for the tax on the preceding year. The tax due must be paid in full with each return.

The operator will have to check carefully the State law under which he operates, since there is not complete uniformity among the various States. The operator may find that although he is not subject to the Federal tax, he may fall under the State provisions. He should find out from the district office of his State unemployment compensation board just what his obligations are in this respect.

The restaurant operator's responsibilities with regard to income tax withholding, the Federal unemployment tax and the Federal Insurance Contributions Act, can be summarized as follows:

1. Obtain and file application Form SS-4 with the District Director of Internal Revenue or the nearest office of the Social Security Administration. From this application, you will receive an identification number which will be used on various forms and in correspondence.

2. Keep a record of the social security account number of each employee. If a new employee has no account number, have him file application Form SS-5.

3. Ask each new employee for a withholding exemption certificate on Form W-4.

4. Keep accurate payroll records showing the name, address, and social security account number of each employee, the amount paid to each, and the amount of taxes deducted from wages.

5. Withhold income and F.I.C.A. taxes from each wage payment as required under the laws.

6. File quarterly returns on Form 941, by each April 30, July 31, October 31, and January 31, with the District Director of Internal Revenue and pay full amount of withholding and F.I.C.A. taxes due for previous quarter. If the total of income tax withheld plus employee and employer F.I.C.A. taxes exceeds \$100 for any month, instead of waiting to the end of the quarter, deposit the total sum in a Federal Reserve bank or other authorized bank by the 15th of the following month. Form 450 is used if monthly deposits are necessary.

7. Give each employee on or before each January 31 and at the end of employment, a withholding statement in duplicate on Form W-2, showing total wages subject to income tax withholding and amount withheld, and amount of employee F.I.C.A. tax withheld and amount of wages subject to this tax.

8. File an annual reconciliation of income tax withheld on Form W-3, by January 31 of each year and send to the District Director copies of all withholding statements (Form W-2) issued for the preceding calendar year.

9. File the annual return for the Federal unemployment tax on Form 940 by January 31 of each year, and pay full amount of tax due.

10. Retain all records pertinent to these taxes for a period of 4 years from the date when taxes are paid. These records must be available to officers of the Internal Revenue Service should the need arise.

Employee Records

Time record and payroll receipts. Even in a small restaurant, a time record is kept showing the regular hours worked each day by shifts for each employee, and the overtime if any. In some States this record is required by law, and even if not required, a signed record of this information helps eliminate disputes between employee and employer.

When paying wages in cash, a payroll receipt is essential. Some forms give details as to cash earnings, meals, rooms, tips, deductions for old-age pensions, income and other taxes, and the net cash payment. The employee signs the receipt in duplicate and is given the carbon copy.

Personnel and individual earnings record. A record of the earnings and deductions for each individual employee must be kept by every employer for the required tax reports. Information is taken from application and employment records, and information on earnings is recorded from week to week from the payroll or payroll receipts signed by the employees.

Sales Taxes

General retail sales taxes are now in effect in a large number of States and many cities, but the exact nature of the taxes, the tax rate, and other important details vary. Consequently, it is not feasible to describe specific sales-tax records that restaurant operators in all of the affected localities can use. The operator should acquaint himself with the law and adapt his record-keeping to the requirements in his State and city.

The records which he must keep for sales-tax purposes, however, are of two main kinds, and the problems involved can be discussed in general terms. In the first place, the restaurant operator must keep a record of the amount of sales or gross receipts subject to tax and the amount of sales or gross receipts exempt from tax. Secondly, the amount of taxes to be paid should be recorded. Where the law provides that general sales taxes either may or must be collected from customers, the amount thus actually collected also should be recorded.

Recording amount of tax. The method of calculating the amount of tax due depends, of course, on the kind of sales-tax law in effect. These tax laws fall into two general groups: (1) those in which the tax to be paid by the proprietor is a stated percentage of his total sales or gross receipts, and (2) those in which he is required to remit to the State the actual amount of tax collected from customers but not less than the amount due under the legal

rate. He must keep a record of the actual amount of tax collected from customers, as well as the amount of sales subject to tax.

Where tax is percentage of sales or gross receipts. Under the first group of laws, the amount of tax collected from customers is not necessarily the same as the amount of tax which the restaurant operator has to pay. In practice, he may collect as sales taxes amounts above or below the amounts which he must remit.

Records can be kept in either of two ways: (1) The operator can keep a record of his gross receipts; that is, sales, plus tax collected; or (2) he can keep a record of sales exclusive of tax, and a separate record of sales taxes collected from customers.

Since it is much simpler to keep a record of gross receipts in the cashbook than it is to record sales and sales taxes separately, the owner will prefer to use this method if he can do so without paying a higher tax than necessary. It is possible to use the gross-receipts record and yet get the same results as when sales and sales tax are recorded separately. For example, assuming the tax rate is 2 percent:

1. Gross receipts (sales plus tax)	\$2,040
2. Sales (gross receipts of \$2,040, divided by 1.02)	2,000
3. Sale tax paid by operator	
(gross receipts minus sales or 1 — 2)	40

If the tax rate were 3 percent, the gross receipts would be divided by 1.03, and so on.

Where tax is amount collected from customers. In those areas where the restaurant operator has to remit the actual amount of tax collected from customers, it is necessary to keep a separate record of the amount of tax collected. There are several ways of determining the amount of tax collected. Perhaps the simplest way to determine the amount of tax collected is actually to segregate such cash. The operator can have a section in his cash drawer, a tax box, or tax jar into which he drops the actual cash collected for sales taxes on each sale. At the end of the day or other period specified by the tax law, the amount collected as tax can be entered in the separate column headed "sales tax."

Two other methods can be used for determining the amount of sales tax collected. Some cash registers have a sales-tax key on which the amount of tax collected on each transaction can be rung up. The register accumulates the total amount of tax collected. Another method is to have a small manually operated counter attached to the register, which records the tax collected on each transaction and accumulates a total. At the end of a period the totals can be entered in the records. Under these two methods it is not necessary actually to segregate the cash received from sales taxes.

In localities where tokens are used, the most practical way to determine the amount of tax collected is to have a "tax box" into which the tokens and cash collected from customers for sales tax on each individual transaction are dropped. The amount in the box is counted up at the end of the day, or week, and is entered in the sales-tax column. For example:

Amount in tax box at end of period:		
Cash	\$20.00	
Tokens	.157	
Total		\$20.157
Less: Amount in tax box at beginning of period:		
Cash	1.00	
Tokens	.251	
Total		1.251
Amount of collected tax to be paid		18.906

In the preparation of the tax reports required in connection with Federal and State income taxes, withholding taxes, social security taxes, and general sales taxes, it is necessary for the restaurant operator to have adequate and accurate records. This imposes a burden of recordkeeping from which the operator cannot escape. The basic data necessary to prepare the tax reports will be available if he has an adequate recordkeeping system. The primary purpose of an adequate set of records, however, is not merely to provide data for tax reports. Rather, the fundamental objective of recordkeeping is to provide facts that will guide the owner in the successful and profitable management of his restaurant.

CHAPTER XV

FINANCIAL STATEMENTS

In the restaurant business, as in any other business there are two financial statements which you must prepare. These are the profit-and-loss statement and the balance sheet. Both are discussed in this chapter.

THE PROFIT-AND-LOSS STATEMENT

The profit-and-loss statement is a summary, in dollars and cents, of the business operations of the restaurant during a given period. In it, income from sales is set off against expenses and cost of food sold for the same period of time. Through this comparison of income and expense it is possible to determine the net profit earned during that period. The profit-and-loss statement summarizes the business operations thus:

Sales

Less: Cost of food sold

Equals: Gross margin

Less: Total operating expenses

Equals: Net profit

Preparing Monthly Profit-and-Loss Statement

Relationship to cashbook. Most of the figures in the monthly profit-and-loss statement are taken from the cashbook, (discussed in Chapter XII).

Sales. Sales equal the monthly total of cash receipts in column 2 of the cashbook. Amounts entered in column 2 to show initial capital, loans, or additional cash investments are not, of course, included in sales.

Food purchases. The monthly total of column 3 in the cashbook shows the amount of cash purchases. To this must be added the food purchases made on credit but not yet paid for, that is, the total amount of unpaid invoices for food, as shown by the invoice file—discussed in Chapter XIII—must be added to the total amount of purchases as shown in the cashbook. For example:

Cash food purchases (total of column 3)	\$775
Add bills payable at end of month	75
Total food purchased during month	<u>850</u>

Operating expenses. In the cashbook, operating expenses are entered in column 6 and the appropriate account numbers in column 7. It is necessary to find the total for each item of expense, which is done by listing and adding the amounts entered after each account number. Wages and salaries, however, are entered separately in columns 4 and 5. Therefore, the sum of the monthly totals of columns 4 and 5 in the cashbook equals the amount of wages and salaries which appears on the monthly profit-and-loss statement.

Monthly Adjustments

Some of the figures shown on the monthly profit-and-loss statement, however, did not come from the cashbook. A profit-and-loss statement, which expresses correctly the financial results of restaurant operations must reflect the net effect of all business operations that have occurred. Adjustments are necessary to

A profit-and-loss statement for a small restaurant, covering operations for the period of a month, is shown

[Profit-and-Loss Statement for the Month of June 19—]

		Percent of sales
Sales	\$2,000	100.0
<i>Food cost:</i>		
Inventory at beginning	\$200	
Purchases for the month	850	
Total	<u>1,050</u>	
Less: Final inventory	150	
Cost of food sold	<u>900</u>	45.0
Gross margin	<u>1,100</u>	55.0
<i>Operating expenses:</i>		
Salaries and wages	\$640	32.0
Rent	100	5.0
Laundry and linen	20	1.0
Paper and cleaning supplies	20	1.0
Utilities and water tax	60	3.0
Replacements, repairs, and maintenance	40	2.0
Depreciation	40	2.0
Advertising	10	.5
Taxes and insurance	40	2.0
Miscellaneous expense	30	1.5
Total operating expenses	<u>1,000</u>	50.0
Net Profit	<u>100</u>	5.0

account for certain operations that have not been recorded in the cashbook. These adjustments cover:

1. Changes in inventory values, as between the beginning and the end of month.
2. Cost of food sold during the month.
3. Noncash expenses not previously entered in the cashbook.

Inventory values. Before the net profit or loss for the month can be computed, the cost value of the food inventory on hand both at the beginning of the month and at the end of the month must be determined. The ending inventory is a physical count of goods taken at the end of the month.

Both the inventory at the beginning of the month—which was the closing inventory for the preceding month—and the one at the end of the current month are needed to find the cost of food sold.

Cost of food sold. The cost of food sold is computed thus:

	Food inventory at beginning of month (at cost value)	\$200
Plus:	Food purchases during month	850
	Total	1,050
Less:	Food inventory at end of month (at cost value)	150
Equals:	Cost of food sold	900

Depreciation of equipment. Every piece of equipment you purchase will ultimately be disposed of because it has outlived its usefulness. This wearing-out process is not something that can be observed day by day, but over a period of a year the amount of wear and tear can be readily computed. Depreciation is an operating expense of the business and should be included in the profit-and-loss statement with other expenses.

Whenever a monthly profit-and-loss statement is prepared, the amount of depreciation should be computed first on an annual basis, as described on page 198, from the permanent equipment records mentioned in Chapter V, and then estimated by taking one-twelfth of the previous year's depreciation charges. Another less acceptable basis commonly used in figuring depreciation for the month is to charge off a fixed percent of sales each month. For example, if 2 percent is the accepted rate, 2 percent of \$2,000 sales would be \$40 for the month's depreciation charge.

Recent changes in the income tax laws permit the taxpayer to depreciate his assets at a faster rate under certain conditions. The owner should become familiar with the alternate methods permitted.

Other expenses. Expenses, such as taxes and licenses, that are paid on an annual basis may also be estimated by taking one-twelfth of the preceding year's payment for such items.

Preparing Annual Profit-and-Loss Statement

The annual profit-and-loss statement, showing the results of the year's operations, is prepared in the same way as are the monthly statements. In fact, most of the figures for the annual profit-and-loss statement can be obtained by adding the amounts for the corresponding item that appear on the 12 monthly statements.

Cost of food sold. In calculating the cost of food sold on the annual profit-and-loss statement, however, the beginning inventory figure would be taken from January profit-and-loss statement, while the inventory value for the close of the period would be taken from the December statement.

Other expenses. The actual amounts—rather than the estimates used in the monthly statements—of expenses that are paid on an annual basis, such as licenses, taxes, and insurance, would be entered on the annual statement.

Depreciation. There are several ways to compute the amount of depreciation for the year, but for general use the simplest and most practical is the straight-line method, by which you estimate (1) the length of time you expect to keep the equipment and (2) the trade-in value of the equipment.

The difference between the original cost and the estimated trade-in value is the total amount of the anticipated depreciation expense. This total divided by the number of years the piece of equipment is expected to last is the annual depreciation charge. For example: A refrigerator is purchased for \$900; it is expected to last 10 years, at which time it probably can be traded in for \$50.

Original cost	\$900
Estimated trade-in value	50
Estimated depreciation	850
Divided by number of years of expected life (10)	85

The amount of expense each year for depreciation of this asset is \$85.

Instead of computing depreciation separately for each piece of equipment, some restaurant operators assume that there will be a complete replacement of equipment every 10 years. Thus, each year they charge off 10 percent of the total original cost of equipment. For example, if the total cost were \$4,200, then \$420 would be charged to depreciation for 1 year.

See comment on page 197 regarding opportunities for using faster rates of depreciation.

Using Profit-and-Loss Statement

The profit-and-loss statement can be used as a management aid to show the weak spots in operation of the restaurant.

Each dollar figure on the profit-and-loss statement can be expressed as a ratio. A ratio is calculated and expressed as a percentage of net sales by dividing the dollar amount of each item on the profit-and-loss statement by the dollar amount of net sales. For example, ratios have been computed for the figures on the statement shown on page 196.

There are three steps in using ratios as a management aid. The first is to compare your own ratios with standard ratios. The second is to analyze the differences between your ratios and standard ones. Some of these differences may be favorable and some may have no particular significance. Still others, however, may be unfavorable, revealing that something is wrong in the restaurant. Thus, the third step is to analyze unfavorable results in order to discover the cause of the trouble, and then take active measures to adjust future policies and operations.

Standard ratios. What are standard ratios? In general they are the average ratios of a group of profitable restaurants in the same size city or town, in the same geographic location, and offering services and having general operating policies similar to yours.

How can you get standard ratios? Trade associations collect profit-and-loss statements from a number of restaurants, calculate ratios, and publish the results. You may be able to arrange for an exchange of figures with other restaurants.

You should be careful, however, in comparing your ratios with standards based on national or broad group averages. Since they include such a great variety of eating places, they are not as satisfactory as standards based on a smaller group of restaurants more nearly like your own.

Sales. Although not expressed in terms of ratios, comparisons can be made between the sales figures of your restaurant and average figures. In comparing income with average figures, seat turn-over for each meal and for the day may be significant. The number of customers for a meal or a day is divided by the number of seats; for example, if there are 200 customers for the day in a 50-seat restaurant, the turn-over is 4.

To find the range in any one restaurant, the sales for a peak day and those for a low day will each be divided by the number of seats, and the average determined by dividing the average sales per day for 1 week by the number of seats.

Cost of food sold. The food-cost ratio is affected by many factors which were discussed in the chapters on menu planning and food-cost control, purchasing, and cookery.

Gross-margin ratio. The gross-margin ratio complements the food-cost ratio and, therefore, is affected by similar factors. A high gross-margin ratio may indicate either purchases of food at

low prices or sales at high prices, or both. A low gross-margin ratio, on the other hand, may point to either inadequate mark-ups or high food costs as a result of poor buying judgment. Or, it may be the result of a deliberate policy of selling at low prices in order to obtain a large sales volume. To be profitable, such a policy must result in large sales volume and be accompanied by low operating costs.

Total operating-expense ratio. A higher-than-average total operating-expense ratio does not necessarily reflect any unfavorable conditions in the restaurant. If it is accompanied by a high gross-margin ratio and a satisfactory net-profit ratio, it may reflect the character and policy of the restaurant. Nevertheless, if the total expense ratio is much higher than that for similar restaurants it is quite likely to indicate low efficiency, that is, poor management in controlling expenses.

Salary and wage ratio. Labor cost consists of the owner's salary and the employees' wages, which may vary in different localities. If the owner and his family do most of the work, their portion of the wage allotment stays in the business or in the family. In some cases, positions which demand split hours are filled by members of the family at a considerable saving to the business.

A high wage ratio may result from inefficient use of help, a poor restaurant arrangement, hiring too many employees for the sales volume obtained, or other factors. On the other hand, like a high gross-margin ratio, a high wage ratio may indicate a carefully planned management policy, such as obtaining sales by providing more or better service instead of spending more on rent, fixtures, or advertising. The degree of success of this policy can be determined by studying sales volume, gross-margin ratio, rent and other expense ratios, and net profit or loss ratio.

A low employees-wage ratio is usually evidence of efficient management, especially if it is accompanied by a low total operating-expense ratio and a satisfactory net-profit ratio. It may mean, however, that the restaurant is not employing enough workers or not employing the right kind of help. The latter is probably the case if sales volume, as measured by sales per seat and turn-over, is unsatisfactory.

Rent, or occupancy, expense ratio. A high rent, or occupancy, expense ratio may be the result of a lease negotiated at high rates, or it may indicate that the building is larger than needed to handle the present sales volume.

A low rent, or occupancy, expense ratio may mean that the operator has been able to obtain the building at a low rental or purchase price. Or it may mean that the structure is too small

for the potential sales volume and that some business is, therefore, lost.

Other expense ratios. Other expenses are smaller in nature and their amounts vary with the policies of the business. They should be constantly watched and controlled, however. The ratios for each of these expenses in the monthly statements should be studied in relation to the individual operation; the percentages shown in the statement on page 196 may be used as guides.

Net profit or loss ratio. The profit or loss ratio indicates the effectiveness of the management of the restaurant and measures the efficiency of its operation. A net profit of 4 to 5 percent can be expected after the operation is established, which supplements the owner's salary. In very small operations, the owner's family is used in lieu of outside help. Their salaries add to the family income. The meals of the owner and of his family are usually taken in addition to cash income.

THE BALANCE SHEET

The balance sheet is a statement of the assets, or those things owned by the business, the liabilities, or those amounts owned by the business, with the difference—assets minus liabilities—equaling the net worth, or capital, of the business enterprise. It is a picture, in dollars and cents, of the financial status of your business at a given time, usually at the end of the last business day in the calendar month closing the fiscal year. The heading of the balance sheet, therefore, includes the date, for example, June 30, 19—, as contrasted with the profit-and-loss statement, on which the time is expressed in a period, for example, June 1–30, 19— or “for the month ending June 30, 19—.”

The financial status of the business and the amount of the net worth, or proprietorship, as shown on the balance sheet should not be confused, however, with the present value of the restaurant as a going business, which usually differs considerably from the total present values of the assets—cash, food, equipment, and so on. If you wish to determine the present value of your restaurant as a going business, it will be better to study the rate of earnings as shown by past and current profit-and-loss statements, as well as the prospects for the future, rather than the balance sheet alone.

As in the chart of accounts, assets are divided into two groups, current and fixed; liabilities are usually only current in nature unless, in case of ownership of real estate, a mortgage is carried, which would be classified under fixed liabilities; and net worth is represented by the capital account. At the end of the first operating period, the balance sheet might appear as illustrated on page 202.

Restaurant
Balance Sheet, June 30, 19—

Current assets:

Cash (on hand and in bank)	\$ 900
Food inventory	150
Deposits with public utility companies	25

Total current assets	\$1,075
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Fixed assets:

Large kitchen equipment	2,500
Dining room furniture and fixtures	1,500
Small kitchen equipment	200
China, glass, silver, and linen	500
Other furniture and equipment	200

Total fixed assets	4,900
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Total assets	<u>5,975</u>
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Current liabilities:

Accounts payable	600
Installment accounts or notes payable	1,100

Total current liabilities	1,700
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Net worth:

Owner's capital, June 1	4,175
Plus: Net profit for June	100

Net worth, June 30	4,275
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Total liabilities and net worth	<u>5,975</u>
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Preparing Balance Sheet

In preparing a balance sheet, a model, such as the one illustrated, may be used or the chart of accounts may be followed.

The figures for the balance sheet come from many sources. The cash amount is found in the cashbook. Food inventory is taken from the profit-and-loss statement. Deposits with public utility companies are taken from the Other Payments column in the cashbook.

All fixed assets come either from the opening entry of a going concern or from the Other Payments column. Or, if some were bought on installment, reference to the purchase contracts or equipment records would give the value.

Accounts payable are found in the unpaid invoice file.

Installment accounts or notes payable are found with the sales contract in the safe or safety deposit box; the information needed should also be on the equipment records. Payments on equipment would appear in the Other Payments column in the cashbook and should be subtracted from the amount previously owed to show the correct figure for this account.

The owner's capital, or net worth, as of the balance sheet at the beginning of the operating period plus the net profit or minus the net loss is the net worth as of the closing date of the period.

Using the Balance Sheet

By entering the figures from each balance sheet on a columnar sheet, an item-by-item comparison may be made from one period to the other. In this way you can determine what increases or decreases have occurred in your current, as well as fixed, assets and in your liabilities.

Within a single balance sheet, certain relationships of value may be analyzed. These are discussed briefly.

The current ratio. The ratio between current assets and current liabilities is important, that is, the obligations to be met within 30 or 60 days should be covered by the value of the current assets at the end of a given period, or even by the amount of cash alone without the food and supplies inventories.

Ratio of current to fixed assets. Another relationship to watch is that of current assets to fixed assets. No owner should put so much into equipment and furnishings that he has no cash with which to build up and operate the business. You need free working capital in the form of cash to pay your rent on time, your employees regularly, and your creditors before the accounts are overdue, and to buy the food needed for the restaurant.

Ratio of net worth to fixed assets. Many restaurant operators get into serious financial difficulties by purchasing equipment or other fixed assets without sufficient capital. In general, you should have at least enough capital invested in your business to pay for most of your fixed assets. In this way you can avoid an important cause of financial trouble.

In addition to comparing the amount of the monthly installment payments on fixed assets with the amount of the monthly net profit, the adequacy of the capital invested in your fixed assets can be determined by comparing the total amount of your net worth with the total net value of your fixed assets (after depreciation).

The ratio of net worth to fixed assets is computed by dividing the total net worth by the total net value of fixed assets. In general, a ratio of around 1 to 1 indicates a satisfactory situation.

Ratio of net worth to debt. The adequacy of the amount of capital invested in the restaurant by the owner is also indicated by the relationship between the net worth and the total amount owed to creditors. In general, you should have at least as much invested in your restaurant as you have borrowed from your creditors. Otherwise, the payments to creditors may drain the

restaurant's current income to such an extent that serious financial difficulties will result.

This ratio is calculated by dividing the total net worth by the total liabilities.

Ratio of net profits to net worth. The earning ability of the capital which you have tied up in your restaurant is indicated by the ratio of net profits, as shown on the profit-and-loss statement for the period, to average net worth, as shown on the balance sheet at the beginning and end of the period.

CHAPTER XVI

MERCHANDISING GOOD FOOD AND SERVICE

EARN CUSTOMER GOODWILL

A discussion of merchandising deals with much that has been written in earlier chapters since it must involve personnel and products and the surroundings in which the latter are served. Many points are presented here, in summary, from the standpoint of their relation to sales.

Successful merchandising in a restaurant requires a competent, cooperative staff, because the deftness, quickness, and courtesy of the service, as well as the quality of food, the surroundings in which it is served, and the price charged, affect customer satisfaction. A tremendous advantage may be lost by the manager who is so busy with operating routine that he neglects the human element involved in the restaurant business.

Employees are likely to reflect by their actions your attitude toward them and toward the patrons. Thus, if you fail to build a good relationship with your employees, if you resent customer suggestions, or if you are interested in food production and service solely as a means of making money it is not likely that you will have a loyal and willing staff.

Courtesy toward guests, carefulness in using equipment, economy of time and materials, development of skill in preparation and service, promptness and dependability are all parts of the workaday conduct of a good salesperson. It is your duty to share responsibility with your employees so that they realize they are contributing to the success of the business.

The first step in restaurant selling is to meet the customer. Satisfactory customer approach includes giving a friendly, courteous greeting and providing prompt attention.

Then the sale must be initiated. This step involves: (1) Familiarizing the customer with available food and services by presenting and explaining the menu, (2) informing the customer

about the food by answering his questions and by offering helpful suggestions, and (3) using suggestive selling methods by giving tactful advice about the food selection. Most customers will accept friendly aid but resent high-pressure salesmanship.

Maintain Quality and Price Standards

One of the most important aspects of good merchandising is the quality of the food served, as evidenced by the desirable condition of the product, attractive color, fragrant odor, and appetizing flavor. A food which is served at the correct temperature is judged to be good, while one of equal quality which is improperly heated or chilled may be considered undesirable.

Patrons prefer restaurants in which there is a good selection of foods. You need not, necessarily, offer a multiplicity of items, but you should have a well-planned menu from which a nutritious and appetizing meal can be easily chosen.

Give Good Value

Prices are important in the average customer's appraisal of an eating place. The price problem in most restaurants is that of establishing a moderate level that will have sales appeal to a wide range of potential customers. This means not only a price which patrons can afford, but also one which they will feel is closely related to the value of the food and the services rendered.

Plate meals sold at a moderate price are an effective means of giving a well-selected meal which can be readily chosen and quickly served. This special plate is frequently given special sales promotion.

Display Food Effectively

The form and manner in which food is displayed and served affect the guest's pleasure in the product selected. A customer judges whether food is good by its eye-appeal. Thus, evenly browned baked goods, smooth-textured custards, fine-grained cakes, firm ripe melons, juicy meats, tempting cream pies, naturally colored fruits and vegetables appeal to him because they look attractive and typify good quality.

Cooked foods sold from a showcase or arranged for self-service on the cafeteria counter should be placed carefully in order to display them to the best advantage. A few suggestions are given.

Consider color harmony and contrast. Point up each food display with one or more colorful items.

Group foods that are served together conveniently near to each

other, for example, meats, potatoes and gravy; salads and salad dressings; bread and butter and other spreads.

Place foods so that they can be easily picked up by the customer or served by the salesperson.

Use the right size serving dishes for each food and do not underfill nor overfill them.

Display serving plates and dishes in straight or slanted rows; do not crowd them on the counter.

Determine Consumer Attitudes

The basis for successful promotion in a restaurant, whether through advertising, food production, or service, is an understanding of the customer point of view. Many a restaurant operator works so hard at the tasks of purchasing food and supervising its preparation and serving that he never stops to look at the restaurant as the customer sees it. He produces meals but does not merchandise them. As a result he overlooks minor points that mean the difference between customer satisfaction and displeasure.

A simple and effective way to learn what customers think of your food is to observe the plates as they come back from the dining room. By noting the food which is left on the plates, you can determine what kinds of food people like. Customers may reject not only unpopular items, but also dishes which they customarily relish that are badly prepared. In the case of a vegetable, for instance, it may be cooked too long or too little, it may not be seasoned properly, or it may be too dry or too soggy. If a number of patrons leave a certain food on their plates, it is a clear indication that something is wrong.

Other points frequently causing customer dissatisfaction include slow service, uncomfortable chairs, tables that are unsteady or so constructed that the legs are in the way, lighting, and drafts. Patrons may also complain if napkins are torn or if no place is provided on which to hang hats or wet raincoats.

If the customers are audible in their complaints, the alert owner can usually detect when things are wrong. However, many customers will not voice their criticisms aloud, but show their dissatisfaction by eating elsewhere.

Frequently, menus or table cards carry a sentence or two inviting customers to make suggestions to the management, and a box may be placed beside the door into which the written comments can be dropped. This method constitutes an inexpensive form of consumer research, and may yield valuable information.

The appearance of your restaurant has much to do with your initial success in drawing business. People are inclined to try a

new eating place if it looks attractive from the outside. A few pointers on using the exterior and interior of your restaurant as selling aids are given.

Capitalize on Restaurant Front

An attractive and inviting restaurant front is of tremendous importance in drawing business, because it indicates the type of atmosphere, food, and service that will be found inside. The restaurant front may be decorated in many ways. It may be modern, with plate-glass windows and colorful tiles. It may be dazzlingly white; it may be faced with glass brick, or other attention-getting materials; it may be of plain brick or wood with a simple window. Or it may be old and quaint, suggesting the appeal of good eating in old-fashioned surroundings. But whatever type of front selected, you should make sure that it does not clash with the interior decorations and the general atmosphere of the restaurant.

Utilize Restaurant Window

There are various types of restaurant windows. One is the large expanse of glass, occupying the greater portion of the restaurant front. Usually this type of window looks directly into the dining room. It may be used to show customers seated at the tables, or curtained or shaded with venetian blinds. Some windows are small, affording only a glimpse of the interior. The English type leaded window, for instance, suggests an atmosphere of coziness. Still another is the display type window, which is closed in back so that it is impossible to see into the dining room. All these different types of windows have definite value and, if the space is skillfully utilized, can be made to do a good selling job.

Using window for display. A small window may sometimes be entirely taken up by a placard advertising a particular advantage, such as air conditioning or home cooking.

Menus placed in the window or at the entrance indicating the food being served and the prices are effective in drawing trade. Eating places concentrating on low-priced dishes sometimes direct attention to specials by means of posters set in removable frames. If these are attractively lettered in pleasing color combinations, they can be helpful in selling the featured item.

Action windows can help draw in a prospective customer, as he pauses in front of your window. One famous restaurateur, for instance, has his chef carve a large, juicy ham before the eyes of the people passing along the street. And when strawberries are in season he stations in the window a pretty waitress putting fresh, ripe strawberries over short cake and topping the whole

thing with delicious-looking whipped cream. Many other restaurateurs have found that having a chef in an immaculate white coat and hat cooking hamburgers or pancakes in the window while tempting odors float out into the street is a powerful selling tool. Still others have their doughnuts, rolls, and pies made and baked in full view from the window. Many restaurants like to suggest good eating by having attractive displays of fruits, vegetables, or other foods in the window.

It is important to have the back and sides of the window so constructed that the background can be easily changed, at little expense. When putting in the lighting, care should be exercised to see that all lights are covered and deflected inward, and that the light is diffused so that there will be no shadows. Colored light bulbs are more effective than white because they create an atmosphere of coziness rather than glare.

Create Restaurant Atmosphere

Attractive interior decorations are important from a promotional standpoint because they create an atmosphere that appeals to customers and increases business.

One type of decoration is to have the walls covered with autographed pictures of famous people, for example, boxers, jockeys, or actors and actresses. Or, an air of quaintness and antiquity can be achieved by placing old pewter beer mugs and plates high upon a ledge. Many restaurateurs use painted murals or photo murals.

On the other hand, some restaurant operators prefer to maintain an air of simplicity and cheerfulness by having plain but warmly tinted walls, placing the emphasis on food rather than on decorations. Certainly in the long run a simple restaurant serving good food will prosper more than an elaborately decorated one with poor or indifferently cooked food.

ADVERTISE YOUR GOOD POINTS

To the operator starting in the restaurant business with a limited amount of capital, the idea of spending money on advertising may have little appeal. This, however, may be the time when money so spent will bring the greatest results.

Plan the Advertising Budget. While it is true that one of the most effective types of restaurant advertising is word-of-mouth, you cannot rely on this means before your business is off to a good start. You must, in the beginning, apportion a percentage of your budget for advertising.

The size of the advertising budget is a matter for each in-

dividual restaurateur to determine. To some, heavy advertising expenditures may yield more than proportionate returns. To others, it is a matter of less importance, and many successful restaurant owners depend on a steady flow of regular customers and on word-of-mouth advertising. In deciding on how much to spend, it may be helpful to know what other restaurants have spent for advertising.

At present, according to a survey by the National Restaurant Association, over 15 percent of the member restaurants spend from 1 percent to 1½ percent of their total annual sales volume on advertising.

Select advertising media. Advertising may take many forms. The restaurant sign, newspapers, direct-mail, billboards, car and bus cards, radio, novelties, blotters, and calendars are some of the means of keeping your business in the public eye. All are of varying degrees of effectiveness in drawing trade, depending on the size of the business and the size of the town, and it will be necessary for you to decide which are best for your particular eating place. The general advantages of each type are pointed out in following paragraphs.

Restaurant sign. To make an impression on passers-by the sign announcing the name of your restaurant must attract attention. First of all, it must be placed where it can be seen by the approaching customer. It should be of a color and design that stands out from surrounding signs competing for the customers' attention.

Some formal restaurants prefer a modest sign simply showing the name of the place. Informal restaurants located in out-of-the-way places and depending on word-of-mouth advertising often do the same. But for the restaurant drawing primarily on the flow of traffic past its doors it is wiser to gain the utmost advantage from a well-placed and attractively designed sign.

Newspapers. Newspaper advertising may be used by even a fairly small restaurant, if the town in which it is located is not too large. A small, well-written message set in a conspicuous spot on the page, preferably on the right-hand side and always in the same place, can have wide sales appeal. But remember that readers usually scan newspapers hurriedly, and unless an advertisement is unusual, it will fail to leave a clear-cut impression with those who see it. In larger communities, newspapers usually have a special section devoted to dining out.

Inviting food editors and other columnists will often result in free publicity—if your food and service are good!

Direct mail. Direct-mail advertising is good because it can be used discriminately. Circulars, menus, and letters are the media

generally employed in this type of advertising. Usually they are distributed only to groups of people who are prospective patrons of the restaurant, for instance, workers in near-by office districts or potential customers in residential sections.

Radio. Radio advertising is feasible for a small restaurant, if you are located in a small or medium-size town. It may be valuable to draw attention to a new place or to some special feature offered by the house.

Billboards. Road signs are sometimes a good means of advertising, particularly in a community with a large influx of tourists. Unless well executed, however, this mode of advertising may become cheap, which would be harmful to a restaurant that prided itself on dignified atmosphere and fine service.

Car and bus cards. Car and bus cards, although expensive, are suitable even for the restaurant in a small town or neighborhood district drawing trade from a sufficiently large proportion of the community in which it is located. On these it is possible to present a somewhat longer sales message than on the road sign.

Novelties. A restaurateur with ingenuity can advertise by means of novelties. Match covers and post cards are popular advertising media for small restaurants.

A chain of drive-in restaurants serves all meals on doilies upon which is printed a rough map of the highways leading into the city, with the location of its eating places marked by a picture. It also uses napkins with attractive designs.

Decide on Advertising Copy

Having decided upon the type of advertising campaign you wish to conduct and the amount you can spend, you are then confronted with the problem of preparing the advertisement. Few people just entering business will find themselves qualified to do this, and thus it will be necessary to seek help from authorities in the field. There are a number of sources to which you can turn for guidance.

A well-integrated advertising program for a new restaurant will be handled best by a qualified advertising agency. An established restaurant may sometimes be able to employ a free-lance advertising man for occasional service. Outdoor advertising companies are the best equipped to advise on roadside ads, signs and guide-posts. Students of advertising in a vocational school or college may be helpful on special assignments. If you plan to advertise in a newspaper, you can consult the service bureau of the newspaper, which is usually equipped to aid the business concerns to which it sells advertising space. Engravers and printers, because of their wide experience in handling advertising material,

can be helpful. If you decide to prepare your advertising copy yourself, you can get valuable information from the service bureau of trade periodicals and from your trade association.

Restaurateurs have found by experience that customers are primarily interested in good food. Convenient location, good service, fair values, cleanliness, attractive decorations, quiet atmosphere, and adequate ventilation are also talking points, and your sales message could well stress any of them. However, to be most effective, the advertising appeal should stress one point only, and that so strongly that it will not be easily forgotten.

Industry-Wide Cooperative Advertising

In November 1955, the National Restaurant Association in cooperation with national manufacturers of brand-name food products launched a \$7 million promotional campaign on behalf of the restaurants of America, the first industry-wide cooperative effort to promote "dining out".

As part of this nation-wide program, ads were placed nationally in newspapers and magazines, billboard advertising was secured and merchandising aids, posters, window cards, table tents, decals, match cover designs, menu clip-ons and ad mats, were distributed to restaurateurs, enabling the individual operator to identify his business, locally, with the all-out campaign and to give point-of-sale support to the promotion.

APPENDIX I

SOURCES OF FURTHER INFORMATION

Many of the references listed below are available in large university and public libraries. Nongovernment publications may be purchased from dealers, or the publisher may be contacted for information on availability.

All current publications of the U. S. Department of Commerce may be obtained from its field offices. Also, both current and out-of-print U. S. Department of Commerce publications and other selected business references may be consulted there. Businessmen and research workers in business subjects are encouraged to use the libraries and other facilities of the U. S. Department of Commerce field offices.

A. GOVERNMENT PUBLICATIONS

For later and additional government publications consult the *Monthly Catalog of United States Government Publications* and the *Monthly Checklist of State Publications*, both available at most large libraries and from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

In the following list, the initials "GPO" mean that the publication cited may be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Publications so identified also may be ordered through field offices of the U. S. Department of Commerce. In either case make check or money order payable to the Superintendent of Documents. Government publications not identified by "GPO" should be ordered from the source given and, when priced, payment should be made to that agency. Prices are subject to change.

In the following list, publications marked with an asterisk are especially valuable.

U. S. Department of Agriculture

Ants in the Home and Garden: How To Control Them. Home and Garden Bulletin No. 28. 1956. 5¢. G.P.O.

Apples in Appealing Ways. Leaflet No. 312. 1951. 10¢. G.P.O.

Beef Chart, Wholesale and Retail Cuts. 1955. 10¢. G.P.O.

Beef Facts for Consumer Education. 1952. Agriculture Information Bulletin No. 84. 15¢. G.P.O.

Bread Facts for Consumer Education. Agriculture Information Bulletin No. 142. 1955. 15¢. G.P.O.

Cheese in Your Meals. Leaflet No. 262. 1949. 5¢. G.P.O.

Cheese Varieties and Descriptions. Agriculture Handbook No. 54. 1953. 45¢. G.P.O.

Chicken in the Freezer. Leaflet No. 279. 1950. 5¢. G.P.O.

Cockroaches and Their Control. Leaflet No. 144. 1950. 10¢. G.P.O.

The Commercial Storage of Fruits, Vegetables and Florist and Nursery Stocks. Agriculture Handbook No. 66. 1954. 30¢. G.P.O.

Comparative Utilization of Energy by Household Electric and Liquified Petroleum Gas Ranges, Refrigerators, and Water Heaters. Technical Bulletin No. 1073. 1953. 20¢. G.P.O.

Composition of Foods—Raw, Processed, Prepared. Agriculture Handbook No. 8. 1950. 45¢. G.P.O.

Composition and Nutritive Value of Pork as Related to Weights of Animals and Cuts. Circular No. 731. 1945. 15¢. G.P.O.

Do You Get Enough Milk? Home and Garden Bulletin No. 47. 1955. 5¢. G.P.O.

Dry Beans, Peas, Lentils, Modern Cookery. Leaflet No. 326. 1954. 10¢. G.P.O.

Eating Places as Marketers of Food Products. Marketing Research Reports No. 3. 1952. 55¢. G.P.O.

Egg Buying Guide for Consumers. Home and Garden Bulletin No. 26. 1954. 10¢. G.P.O.

Egg Dishes for Any Meal. Leaflet No. 261. 1949. 5¢. G.P.O.

Energy Value of Foods. Agriculture Handbook No. 74. 1955. 55¢. G.P.O.

Food Values in Common Portions. Agriculture Information Bulletin No. 36. 1951. 5¢. G.P.O.

Freezing Combination Main Dishes. Home and Garden Bulletin No. 40. 1954. 10¢. G.P.O.

French-Frying Quality of Potatoes. Technical Bulletin No. 142. 1956. 20¢. G.P.O.

A Fruit and Vegetable Buying Guide for Consumers. Home and Garden Bulletin No. 21. 1952. 20¢. G.P.O.

Green Vegetables for Good Eating. Home and Garden Bulletin No. 41. 1954. 10¢. G.P.O.

Honey, Some Ways To Use It. Home and Garden Bulletin No. 37. 1953. 10¢. G.P.O.

The House Fly: How to Control it. Leaflet No. 390. 1955. 5¢. G.P.O.

How To Choose and Use Nonfat Dry Milk, Handy, Tastes Good, Nutritious, Economical. Program Aid No. 227. 1953. 5¢. G.P.O.

The Inspection Stamp as a Guide to Wholesome Meat. Agriculture Information Bulletin No. 92. 1952. 15¢. G.P.O.

Know the Eggs You Buy. 1956. Poster. 30¢. G.P.O.

Know the Poultry You Buy. Poster. 1952. 10¢. G.P.O.

Know Your Butter Grades When You Buy Butter—Look for U. S. Grade Mark. Leaflet No. 264. 1956. 5¢. G.P.O.

Meat for Thrifty Meals. Home and Garden Bulletin No. 27. 1953. 20¢. G.P.O.

Milk and Its Products, Facts for Consumer Education. Agriculture Information Bulletin No. 125. 1954. 25¢. G.P.O.

- Money-Saving Main Dishes.* Home and Garden Bulletin No. 43. 1955. 20¢. G.P.O.
- Mosquitos: How To Control Them on Your Property.* Leaflet No. 386. 1955. 5¢. G.P.O.
- National Food Guide.* Leaflet No. 288. 1950. 5¢. G.P.O.
- Nutrition Charts, 1-10.* \$1.25 for set of 10 charts. G.P.O.
- Nutrition, Up to Date, Up to You.* Separate from Home and Garden Bulletin No. 1. 1950. 15¢. G.P.O.
- Peaches: Facts for Consumer Education.* Agriculture Information Bulletin No. 54. 1951. 10¢. G.P.O.
- Peanuts and Peanut Butter Recipes.* Home and Garden Bulletin No. 36. 1953. 10¢. G.P.O.
- Pickle and Relish Recipes.* Leaflet No. 269. 1950. 10¢. G.P.O.
- Planning Food for Institutions.* Agriculture Handbook No. 16. 1951. 45¢. G.P.O.
- Pork, Facts for Consumer Education.* Agriculture Information Bulletin No. 109. 1954. 15¢. G.P.O.
- Potatoes in Popular Ways.* Leaflet No. 295. 1950. 5¢. G.P.O.
- Poultry Buying Guide for Consumers.* Home and Garden Bulletin No. 34. 1953. 10¢. G.P.O.
- Preservation of Vegetables by Salting or Brining.* Farmers Bulletin No. 1932. 1944. 10¢. G.P.O.
- Proceedings of National Food and Nutrition Institute, December 1952.* Agriculture Handbook No. 56. 1953. 65¢. G.P.O.
- Recipes for Evaporated Apple Rings.* Leaflet No. 263. 1950. 5¢. G.P.O.
- Recipes for Quantity Service.* 1953-54. Food Service VII-X. Available from the Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.
- Recipes—Type A School Lunches.* Pa-271. A card file. 1955. \$2.25. G.P.O.
- Root Vegetables in Everyday Meals.* Home and Garden Bulletin No. 33. 1953. 5¢. G.P.O.
- School Lunch Publications.* A list of publications pertaining to school lunches, available, without charge, from the Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.
- Sour Cream, How To Prepare and Use It at Home.* Leaflet No. 213. 1941. 5¢. G.P.O.
- Sweetpotato Recipes.* Leaflet No. 293. 1950. 10¢. G.P.O.
- Tomatoes, Facts for Consumer Education.* Agriculture Information Bulletin No. 32. 1951. 10¢. G.P.O.
- Tomatoes on Your Table.* Leaflet No. 278. 1953. 10¢. G.P.O.
- Turkey on the Table the Year Round.* Home and Garden Bulletin No. 45. 1950. 15¢. G.P.O.
- U. S. Grades of Beef.* Leaflet No. 310. 1956. 5¢. G.P.O.
- U. S. Standards for Grades of Meat.* Available from the Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D.C.
- Service and Regulatory Announcements:
- No. 99, Official United States Standards for Grades of Carcass Beef.
- No. 114, Official United States Standards for Grades of Veal and Calf Carcasses.
- No. 123, Official United States Standards for Grades of Lamb, Yearling Mutton, Mutton Carcasses.

No. 71, Official United States Standards for Grades of Pork Carcasses (Barrow and Gilt).

No. 98, Rules and Regulations of the Secretary of Agriculture Governing the Grading and Certification of Meats, Prepared Meats, and Meat Products, and Administrator's Instructions Thereunder.

United States Standards for Grades of Processed Fruits and Vegetables.

A list of standards available for canned, dried, frozen sugar products and miscellaneous. This 4-page list, plus the standards themselves, are available, without charge, from the Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

Ways to Cook Rabbit. Home and Garden Bulletin No. 35. 1953. 10¢. G.P.O.

What To Do When Your Home Freezer Stops. Leaflet No. 321. 1952. 5¢. G.P.O.

U. S. Department of Commerce

Business Service Bulletins. 10¢ each. Available from the U. S. Department of Commerce, Washington 25, D. C., or from its field offices.

Basic Information Sources. This series of Bulletins lists government and nongovernment publications, directories, trade magazines, trade associations, and other source of information for use by those interested in locating specific information on selected trades, business practices or functions.

**Bakery Product.* BSB 132.

**Coffee, Cocoa, and Tea.* BSB 115.

**Commercial Cooking, Soda Fountain, and Food Service Equipment.* BSB 94.

**Electrical and Gas Appliances.* BSB 20.

Frozen Foods and Lockers. BSB 117.

**Grocery, Meat and Produce Stores.* BSB 126.

Ice Cream Industry. BSB 147.

National Directories for Use in Marketing. BSB 123.

**Operating Costs and Ratios—Retail Trades and Service Establishments.* BSB 50.

**Restaurants and Other Eating Places.* BSB 101.

Retailing. BSB 43.

Retailing Alcoholic Beverages. BSB 144.

Retail Store Advertising. BSB 2.

Shopping Centers. BSB 3.

**Spices.* BSB 133.

Store Arrangement and Display. BSB 5.

Training Retail Salespeople. BSB 4.

**Warehousing.* BSB 96.

Summaries of Information. These Bulletins give a brief summary of information on the subjects treated, including current developments, practices, or data.

**Building an Insurance Plan for Your Business.* BSB 125.

**Business Life Insurance.* BSB 34.

Corporation Life Insurance. BSB 35.

**Partnership Life Insurance.* BSB 36.

**Sole Proprietorship Life Insurance.* BSB 33.

Business Service Checklist. Weekly. 4 pages. \$1.25 per year domestic, \$2.25 foreign; single copy 5¢. G.P.O. Lists material published by the U. S. Department of Commerce, and other agencies.

Census of Business: 1954. Release of preliminary reports of this census began late in 1955 and will continue through 1956. The retail trades reports, designated PR-1, consist of a separate report for each State, and a United States summary report. State reports contain data for the State as a whole, for each county, and for each city of 2,500 or more inhabitants and include data on: Number of establishments, sales, payroll, number of paid employees, number of proprietors of unincorporated businesses. Data for eating and drinking places (combined) are included. Data for detailed kinds of businesses are carried only in final reports. Preliminary reports are priced at 10¢ each. The complete set of retail trade reports is \$4.00. Orders should be addressed to Bureau of the Census, Washington 25, D. C., or any U. S. Department of Commerce field office.

Census of Business—1948. Volume I, Retail Trade-General Statistics, Part 1, \$4.50, G.P.O.; Volume II, Retail Trade-General Statistics, Part 2, and Merchandise Line Sales Statistics, \$4.50, G.P.O.; Volume III, Retail Trade-Area Statistics, \$7.50, G.P.O. Data on eating and drinking places, including sales, number of stores, payroll.

County Business Patterns—1953. In 10 Parts. Part I, U. S. Summary, other 9 parts divided regionally. Prices vary from 75¢ to \$1.75 per part. G.P.O. Contains statistical data for the first quarter of 1953 on employees, taxable payrolls, reporting units, reporting units by employee-size class, under the old-age and survivors insurance program. Data on eating and drinking places (combined). Data most complete for larger counties.

County and City Data Book—1952. 638 pages. \$4.25 in buckram. G.P.O. Contains data on eating and drinking places (combined) in 1948, including: Number of stores, and sales.

Distribution Data Guide. Monthly. \$2.00 per year domestic, \$2.50 foreign, including 12 monthly issues and two subject indexes; individual copies 15¢; indexes 20¢. G.P.O. An annotated bibliography of new materials pertaining to the distribution and service industries, including restaurants. Contains a brief summary of pertinent publications from governmental and nongovernmental sources, covering over 100 items each month.

Establishing and Operating Your Own Business. Domestic Commerce Series No. 22. 1950. 42 pages. 35¢. G.P.O. Highlights the major problems involved in the complex task of planning and opening a new business. Suggests specific steps one can take to arrive at sound decisions.

Directory of National Trade Associations. See Associations section.

Retail Trade Report. Monthly. 14 pages. \$1.00 per year domestic, \$1.35 foreign; 10¢ per copy. G.P.O. Includes data on sales of eating and drinking places.

Statistical Abstract of the United States. Annual. 1956 edition, 1,049 pages. \$3.75 in buckram. G.P.O. Contains data on eating and drinking places for selected years from 1929 to 1955, including: Sales, employment, number of firms. The *Abstract* is excellent for historical data and for finding sources; often more recent data are available from the original sources. Well indexed.

U. S. Department of Defense

**Army and Air Force Cook Book.* Technical Manual 10-412. \$1.25. G.P.O.

**Army Baker.* 1945. 30¢. G.P.O.

**Army Cook.* 1946. \$1.50. G.P.O.

**Cook's Workbook.* 1951. 50¢. G.P.O. Does not contain recipes.

- **Meat Handbook of the United States Navy*. 1946. G.P.O.
- **Navy Recipes Service*. \$5.00. G.P.O. Collection of recipe cards.
- **United States Marine Corps Recipe Manual*. \$3.25. G.P.O.

U. S. Department of Health, Education, and Welfare

Definitions and Standards for Foods. Service and Regulatory Announcements, Food, Drug, and Cosmetic No. 2. (S.R.A., F.D.C. 2). Definitions and standards of identity, quality, and fill of container for foods which have been promulgated under the Act, are issued in the following separate parts:

- *Part 14. Chocolate and Cocoa Products. 5¢. G.P.O.
- *Part 15. Wheat and Corn Flour and Related Products. 10¢. G.P.O.
- *Part 16. Macaroni and Noodle Products. 10¢. G.P.O.
- *Part 17. Bakery Products. 5¢. G.P.O.
- *Part 18. Milk and Cream. 5¢. G.P.O.
- *Part 19. Cheeses and Cheese Products. 15¢. G.P.O.
- *Part 25. Dressings for Foods—Mayonnaise French Dressing—Salad Dressing. 5¢. G.P.O.
- *Part 27. Canned Fruit. 10¢. G.P.O.
- *Part 29. Fruit Butters-Jellies-Preserves. 5¢. G.P.O.
- *Part 36. Shellfish. Available from Food and Drug Administration, Washington 25, D. C.
- *Part 42. Eggs and Egg Products. 5¢. G.P.O.
- *Part 45. Oleomargarine-Margarine. 5¢. G.P.O.
- *Parts 51/53. Vegetables and Vegetable Products. 10¢. G.P.O.

Federal Food, Drug, and Cosmetic Act and General Regulations for its Enforcement. Service and Regulatory Announcements, Food, Drug, and Cosmetic No. 1 (S.R.A., F.D.C. 1). 25¢. G.P.O.

From Hand to Mouth. Rev. 1953. 48 pp. 20¢. G.P.O. A brief discussion of proper sanitation procedures for eating places.

**Ordinance and Code Regulating Eating and Drinking Establishments*. 1943 recommendations of the Public Health Service. Public Health Service Publication No. 37. 1950. 60 pp. 25¢. G.P.O.

Read the Label on Foods, Drugs, Devices, Cosmetics. Miscellaneous Publication No. 3. 15¢. G.P.O.

Trade and Industrial School Lists. 1954. 1 or 2 pages each. Available, without charge, from Trade and Industrial Education Branch, Division of Vocational Education, Office of Education, U. S. Department of Health, Education, and Welfare, Washington 25, D. C. Lists of cities in which instruction is given for a specific occupation. Separate lists available for: Baker, chef, cook, waiter, and waitress.

**Training Restaurant Sales Personnel*. 1941. 117 pages. 75¢. G.P.O. Issued by the U. S. Office of Education.

U. S. Department of the Interior

- **Basic Fish Cookery*. TKS 2. 20¢. G.P.O.
- **Composition of Cooked Fish Dishes*. 25¢. G.P.O.
- **Fish Cookery for One Hundred*. TKS 1. 30¢. G.P.O.
- **Fresh and Frozen Fish Buying Manual*. 25¢. G.P.O.
- **How To Cook Clams*, TKS 8. 20¢. G.P.O.
- How To Cook Ocean Perch*. TKS 6. 10¢. G.P.O.
- **How To Cook Oysters*. TKS 3. 10¢. G.P.O.
- How To Cook Salmon*. TKS 4. 15¢. G.P.O.
- **How To Cook Shrimp*. TKS 7. 15¢. G.P.O.

Items listed below are available, upon request, from the Fish and Wildlife Service, U. S. Department of the Interior, Washington 25, D. C. The supply is small and distribution is limited to those who have special need for the material. Service policy is that *no more than 1 copy each of 5 publications may be sent to an individual*. Please ask for items by reference number and title, and list them in numerical order by series (FL or SEP).

Cookery

- Cooking Carp*. 19 FL.
Cod — The Beef of the Sea. 269 FL.
Fish for Breakfast and Why Not? 247 FL.
Fish Cookery in the Open. 35 FL.
**Fish and Shellfish Canapes and Hors d'Oeuvres*. 275 FL.
Garfish Recipes. 61 FL.
**How To Cook Fish*. 106 FL.
Little Tuna Recipes. 416 FL.
Markets and Recipes for Fresh-Water Turtles. 69 FL.
Pacific Salmon. 202 FL.
Preparation of Three Fishes of the Pacific Coast — Shark, Shad, and Lingcod. 30 FL.
Recipes for Pacific Rockfish. 194 FL.
**Rosefish Cookery — A Demonstration Manual*. 320 FL.
**Sauces for Seafood*. 53 FL.
Tilefish Recipes. 404 FL.

Food Value and Composition

- Fishery Products as a Source of Animal Protein*. 282 Sep.
Food Value of Fish and Shellfish. 36 FL.
Nutritive Value of Baked Croaker. 171 Sep.
Nutritive Value of Canned Fishery Products. 90 FL.
Nutritive Value for Growth of Some Fish Proteins. 178 Sep.

Refrigeration

- **Fish Can Be Stored in Refrigerated Lockers With Other Food*. 181 FL.
**Fish Refrigeration*. 214 FL.
**Handling Fresh Fish*. 115 FL.
An Improved Method of Glazing Fish for Locker Storage. 321 F.L.
Wrapping Materials for Frozen Fish. 213 FL.

U. S. Department of Labor

- Night Work for Women in Hotels and Restaurants*. Women's Bureau Bulletin No. 233. 20¢. G.P.O.
Occupational Outlook Handbook. Bulletin No. 998. 1951. 576 pages. \$3.00. G.P.O. Beginning on page 478 is a description of the outlook for restaurant operations.
The Outlook for Women in Dietetics. Home Economics Occupations Series Bulletin No. 234-1. 1950. 25¢. G.P.O.
The Outlook for Women as Food-Service Managers and Supervisors. Home Economics Occupations Series Bulletin No. 234-2. 1952. 20¢. G.P.O.

Food and Agriculture Organization of the United Nations

Documents available from the International Documents Service, Columbia University Press, 2960 Broadway, New York 27, N. Y.

Commodity Standards for Fishery Products. Fisheries Study No. 2. 1953. \$2.

Energy-Yielding Components of Food and Computation of Calorie Values. 1947. 20¢.

Food Composition Tables for International Use. Nutritional Study No. 3. 1949. 75¢.

Food Composition Tables, Minerals and Vitamins for International Use. Nutritional Study No. 11. 1954. \$1.

**Some Aspects of Food Refrigeration and Freezing.* Agricultural Study No. 12. 1950. \$2.

B. NONGOVERNMENT PUBLICATIONS

Food Purchasing, Menu Planning, Food Preparation

Abelard Press, 404 Fourth Avenue, New York 16, N. Y.

Wines of the World. Peter J. Valaer. 1950. \$6.50.

Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.

Meat Cutting Manual. Paul F. Muellett. 1954. \$2.60.

Pie Marches On. Monroe B. Strause. 2d edition, 1951. \$5.

Quantity Buying Guides. Adeline Wood. 1st edition. 1952. \$3.95.

American Home Economics Association, 1600 - 20th Street, NW., Washington 9, D. C.

Handbook of Food Preparation. 1950. 75¢.

American Hospital Association, 18 East Division Street, Chicago 10, Ill.

Manual of Specifications for Canned Fruits and Vegetables. 1947. \$2.50.

American Institute of Baking, 400 East Ontario Street, Chicago 11, Ill.

Modern Sandwich Methods. 1952. 25¢.

American Trade Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.

The Art of Creative Cake Decorating. Esther Murphy. 1953. \$15.00.

Bakers Weekly Recipes. Charles A. Glaubau. 7th edition. 1949. \$6.25.

Hotel - Restaurant Dessert Book. Den Dooven. \$6.

Pastry for the Restaurant. Paul Richards. \$1.50.

Charles A. Bennett Company, 237 North Monroe Street, Peoria 3, Ill.

The Complete Meat Book. Thora H. Campbell and Beth B. McLean. 1953. \$4.95.

Meal Planning and Table Service. Beth B. McLean. Revised edition, 1949. \$3.

William C. Brown, 915 Main Street, Dubuque, Iowa.

Essentials of Food Preparation. Madge Miller and Mary Barnhart. 1947. \$3.

Burgess Publishing Company, 426 South Sixth Street, Minneapolis 15, Minn.

Quantity Recipes for Quality Food. E. E. Smith. 1950. \$2.50.

Clissold Publishing Company, 105 West Adam Street, Chicago 3, Ill.

Artistic Cake Decorating From A to Z. John L. Zenker. 1951. \$12.50.

Cakes for Bakers. Paul Richards. 1946. \$5.

Fundamentals of Breads, Rolls and Sweet Doughs. Paul Richards. 1946. \$2.

Dahl Publishing Company, 74 West Park Place, Stamford, Conn.

This company publishes many books that would be of interest to operators of eating places. Their catalog is available upon request. Listed below are but a few of their publications.

Food Cost Control. J. O. Dahl. \$1.

Menu Making for Professionals in Quantity Cookery. J. O. Dahl.

Revised 1950. \$4.50.

Doubleday and Company, 575 Madison Avenue, New York 22, N. Y.

The Art of Cooking With Herbs and Spices. Milo Miloradovich. 1951. \$2.95.

The Art of Fish Cookery. Milo Miloradovich. 1949. \$2.80.

The Art of Making Italian Desserts. Maria L. Pinto. 1952. \$2.95.

Food Service, 2132 Fordem Avenue, Madison 1, Wis.

There's Profit in Deep Fat Frying. \$1.

Funk and Wagnalls, 153 East 24th Street, New York 10, N. Y.

Meats, Poultry and Game. Louise H. Gross. 1950. \$3.

The Grocery Trade Publishing House, 1386 Beverly Avenue, St. Louis 22, Mo.

Food Buyer's Information Book. Alexander Todoroff. 1946. \$4.

Harper and Brothers, 49 East 33rd Street, New York 16, N. Y.

Chef's Guide in Quantity Cookery. J. H. Breland. 1947. \$6.

Hastings House, 41 East 50th Street, New York 22, N. Y.

Dictionary of Wine. Frank Schoonmaker. 1951. \$2.50.

The Hotel Monthly Press, 1948 Ridge Avenue, Evanston, Ill.

This press publishes many books of interest to operators of restaurants and other eating place. Its catalog is available upon request. Listed below are a few of these publications.

How To Cut Food Costs. Prepared by the New York Restaurant Association. \$1.50.

Short Courses on Restaurant Operation. G. Wenzel. \$5.

Wenzel's Menu-Maker. G. Wenzel. \$27.50.

Houghton, Mifflin Company, 2 Park Street, Boston 7, Mass.

Foods. Margaret Justin, Lucile Rust and Gladys Vail. 1948. \$4.25.

The Ice Cream Merchandising Institute, 1022 Barr Building, Washington 6, D. C.

Let's Sell Ice Cream. 1947. \$7.15.

Institute of Meat Packing, American Meat Institute, 59 East Van Buren Street, Chicago 5, Ill.

Beef, Veal and Lamb Operations. 1945. \$3.50.

Interscience Publishers, 250 Fifth Avenue, New York 1, N. Y.

The Chemistry and Technology of Food and Food Products. Morris B. Jacobs. 1951. \$42.

Interstate Printers and Publishers, 19-27 North Jackson Street, Danville, Ill.

The Meat We Eat. Thomas P. Ziegler. 1952. \$3.50.

Lane Publishing Company, Menlo Park, Calif.

Sunset Salad Book. Emily Chase. 1946. \$1.

Lea and Febiger, 600 Washington Square, Philadelphia 6, Pa.

Meat Hygiene. Albert R. Miller. 1951. \$7.50.

J. B. Lippincott Company, East Washington Square, Philadelphia 5, Pa.

Large Quantity Recipes. Margaret Terrill. 1951. \$7.

Little, Brown and Company, 34 Beacon Street, Boston 6, Mass.

This publisher has 31 different cookbooks available, varying from 400 *Salads* and *The Wine Cook Book* to *Quantity Cookery*. A list is available, upon request, from the publisher.

- Macmillan Company, 60 Fifth Avenue, New York 4, N. Y.
- Chemistry of Food and Nutrition.* Henry C. Sherman. 1952. \$6.
- McGraw-Hill Book Company, 330 West 42nd Street, New York 36, N. Y.
- Meat for the Table.* Sleeter Bull. 1951. \$3.75.
- National Association of Retail Grocers, 360 North Michigan Avenue, Chicago 1, Ill.
- Large Quantity Recipes.* D. Glenn. 1947. 140 pages. \$3.50.
- National Council on Hotel and Restaurant Education, Box 7727, Benjamin Franklin Station, Washington, D. C.
- Food Preparation and Related Subjects: A Selected Annotated List of Books.* 1950. \$1.
- Food Preparation and Related Subjects: A Selected Annotated List of Visual Aids.* 1951. \$1.
- National Live Stock and Meat Board, 407 South Dearborn Street, Chicago 5, Ill.
- Cooking Meat in Quantity.* 2d edition, 1946.
- Meat Manual: Identification, Buying, Cooking.* 4th edition, 1950.
- Ten Lessons on Meat.* 7th edition, 1950.
- National Restaurant Association, 8 South Michigan Avenue, Chicago 3, Ill.
- Fundamental Rules for Correct Cooking of All Fish.* Technical Bulletin No. 111. 1953.
- How To Make, Bake, Fill, Freeze and Serve Pies.* Technical Bulletin No. 121. 1953.
- National School of Meat Cutting, Toledo 4, Ohio.
- Profitable Meat Cutting for Restaurants.* 1st edition, 1953. \$25.
- New York State College of Agriculture, Ithaca, N. Y.
- Cake Quality and Batter Structure.* Mildred Hunter, Alice Briant and Catherine Personius. Bulletin 860. 1950.
- New York State College of Home Economics, Ithaca, N. Y.
- Cake Decorating.* Myrtle H. Ericson. Cornell Extension Bulletin 877. 1953.
- Purchasing Food for Fifty.* Marion W. Crosby and Katharine W. Harris. Cornell Extension Bulletin 803. 1950.
- Quantity Recipes.* Marion Wood and Katharine W. Harris. Cornell Extension Bulletin 477. 1951. \$1.
- New York State Restaurant Association, 369 Lexington Avenue, New York 17, N. Y.
- Bigger Profits With Better Menus.* 1946. \$1.50.
- How To Cut Food Costs.* E. M. Fleischman Revised edition, 1951. \$1.50.
- Oklahoma A & M School of Baking, Stillwater, Okla.
- Science and Practices of Bread and Rolls Manufacture.* John C. Summers. 1952. \$3.95.
- Paper Cup and Container Institute, 1790 Broadway, New York 19, N. Y.
- Portion Control and Food Cost Control Manual.* George Wenzel. 1950. \$1.
- Prentice-Hall, 70 Fifth Avenue, New York 11, N. Y.
- Foods and Principles of Cookery.* Natalie Fitch and Charlotte Francis. 1948. \$6.60.
- Reinhold Publishing Company, 430 Park Avenue, New York 22, N. Y.
- Marine Products of Commerce.* Donald K. Tressler and James M. Lemon. 2d edition, 1951. \$18.00.
- Rinehart and Company, 232 Madison Avenue, New York 16, N. Y.
- Sauces, French and Famous.* Louis Diat. 1951. \$2.50.

- Ronald Press Company, 15 East 26th Street, New York 10, N. Y.
Meats and Meat Foods. Lloyd B. Jensen. 1949. \$3.75.
- University of Chicago Press, 5750 Ellis Avenue, Chicago 57, Ill.
How and Whys of Cooking. Evelyn Halliday and Isabel Nobel. 1946.
 \$3.75.
- John Wiley and Sons, 440 Fourth Avenue, New York 16, N. Y.
Food for Fifty. Sina Fowler and Bessie West. 1950. \$4.50.
Food Selection and Preparation. Marion Sweetman. 4th edition, 1954.
 \$6.50.
- Practical Cookery.* Kansas State College of Agriculture and Applied
 Science. 21st edition, 1947. \$3.
- Wine Advisory Board, 717 Market Street, San Francisco 3, Calif.
Restaurant Manager's Kit. Free.
The Sale of Wine in Restaurants.
- William H. Wise, 50 West 47th Street, New York 19, N. Y.
The Wise Encyclopedia of Cookery. 1953. \$4.95.
- A. A. Wyn, 23 West 47th Street, New York 36, N. Y.
Vegetable Cookery. Florence T. Harris. 1952. \$3.

Sanitation, Food Preservation

- Avi Publishing Company, 31 Union Square, New York 3, N. Y.
Into the Freezer and Out. Donald Tressler, Clifford and Barbara Evers.
 1953. \$3.75.
- The Freezing Preservation of Foods.* Donald Tressler and Clifford
 Evers. 1946. \$12.
- Chemical Publishing Company, 212 Fifth Avenue, New York 10, N. Y.
Detergents. Donald Price. 1952. \$4.
- The Commonwealth Fund, Harvard University Press, 44 Francis Avenue,
 Cambridge 38, Mass.
Milk and Food Sanitation Practice. Harold S. Adams. 1947. \$3.25.
- Garrard Press, 123 West Park Avenue, Champaign, Ill.
Food-Borne Infections and Intoxications. Fred W. Tanner and Louise
 P. Tanner. 1953. \$12.
- McGraw-Hill Book Company, 330 West 42nd Street, New York 36, N. Y.
Sanitation for the Food-Preservation Industries. Association of Food
 Industry Sanitarians. 1952. \$5.
- National Sanitation Foundation, School of Public Health University of
 Michigan, Ann Arbor, Mich.
Studies on Dishwashing. W. L. Mallman, and D. Kahler. Research
 Bulletin No. 2. 1949.
- A Study of Mechanical Dishwashing.* W. L. Mallman and others. Re-
 search Bulletin No. 1. 1947.
- New York State Restaurant Association, 369 Lexington Avenue, New York
 17, N. Y.
Sanitation Manual. 1948. \$2.
- Rutgers University Press, New Brunswick, N. J.
The Rutgers Food Saver. Walter A. Maclinn. 1952. \$2.95.
- St. Marten's Press, 103 Park Avenue, New York 17, N. Y.
Food Poisoning and Food Hygiene. Betty C. Hobbs. 1953. \$3.50.
- University of Chicago Press, 5750 Ellis Avenue, Chicago 37, Ill.
Food Poisoning. G. M. Dock. Revised edition, 1949. \$3.75.
- University of the State of New York, Albany, N. Y.
Sanitary Food Handling. 1950. \$2.95.

Water Conditioning Research Council, 111 West Washington Street, Chicago 2, Ill.

What Is Hard Water. Cornelia Tyler. 1953. \$1.93.

John Wiley and Sons, 440 Fourth Avenue, New York 16, N. Y.

Principles of Food Freezing. Willis Gortner, Frederic Erdman and Nancy Masterman. 1948. \$3.75.

Food Service, Selecting and Training Employees

Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.

The Correct Waitress. Susan Dietz. 1952. \$1.50.

Burgess Publishing Company, 426 South Sixth Street, Minneapolis 15, Minn.

A Guide to the Selection and Training of Food Service Employees.

American Dietetic Association. 1947. \$1.50.

Columbia Publishing Company, Box 1623, Washington 4, D. C.

Handbook for Waitresses. Imogene B. Wright. 1949. \$2.

Doubleday and Company, 575 Madison Avenue, New York 22, N. Y.

The Art of Serving Food Attractively. Mary Wenker. 1951. \$2.45.

Hotel Monthly Press, 1948 Ridge Avenue, Evanston, Ill.

The American Waiter. John B. Goins. \$1.90.

McGraw-Hill Book Company, 330 West 42nd Street, New York 36, N. Y.

Human Relations in the Restaurant Industry. William Foot Whyte. 1948. \$5.50.

General Management Problems

Accounting Corporation of America, 1929 First Avenue, San Diego, Calif.

Mail-Me-Monday Barometer of Small Business. Quarterly and annual publication. \$5 per copy for 1st, 2d, and 3d quarterly issues, \$10.00 per copy for yearbook. Annual subscription (4 issues), \$20. Sales volume and trends, operating ratios and typical financial statements for over 50 basic types of small business, by sales volume groupings. Contains data on eating places.

Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.

Food Sales Unlimited. Paul H. Heine. 1952. \$7.50.

Modern Luncheonette Management. E. M. Fleischman. 1955. \$3.75.

Pin-Pointing Your Profits. 1953. \$1.50.

Profitable Food and Beverage Operation. Harris, Kerr, Forster and Company. 1955. \$7.

Cornell University, School of Hotel Administration, Ithaca, N. Y.

Hotel Management and Related Subjects. B. E. Fickle. 1956. 25¢.

Selected list of books, pamphlets, and periodical articles dealing with hotels, restaurants, motels and similar institutions.

Dahl Publishing Company, 74 West Park Place, Stamford, Conn.

Soda Fountain and Luncheonette Management. J. O. Dahl. \$3.

Dun and Bradstreet, Business Library, 99 Church Street, New York 8, N. Y.

Operating Ratios for 35 Lines of Retail Trade. September 1955. 4 pages. Available upon request. Selected expense ratios, net profits, and inventory turnover. Data base varies from 1949 to 1954. Contains data on eating places.

Food Service, 2132 Fordem Avenue, Madison 1, Wis.

Take-Home Service — A Profit-Plan for Food Service Operators. 50¢.

Greenberg Publisher, 201 East 57th Street, New York 22, N. Y.

How To Be a Success in the Restaurant Business. Madeline Gray and Vass De Lo Padua. 1946.

- How To Cook for Profit.* M. Gray and Vass De Lo Padua. 1947. 396 pp. \$5.
- Sandwich Shops, Drive-Ins, and Diners—How To Start and Operate Them Successfully.* L. X. Garfunkel. \$5.
- Donald E. Lundberg, Department of Restaurant and Hotel Management, State University, Tallahassee, Fla.
- Business Management: Hotels, Motels and Restaurants.* D. E. Lundberg and C. V. Kane. 1952. \$6.
- National Cash Register Company, Merchants Service Department, Dayton 9, Ohio.
- Success in the Restaurant Business.* Available upon request.
- Ohio State University, Bureau of Business Research, Columbus 10, Ohio.
- Proceedings of the 12th Annual Conference on Restaurant Management.* 1956. Free, while the supply lasts.
- National Council on Hotel and Restaurant Education, Box 7727, Benjamin Franklin Station, Washington, D. C.
- Directory of Schools and Colleges Offering Courses for the Training of Managers, Supervisors and Workers in the Hotel and Restaurant Industry.* 1954. 50¢.
- National Foreman's Institute, 100 Garfield Avenue, New London, Conn.
- The Industrial Cafeteria and Restaurant Worker's Manual.* 2d edition, 1946. \$2.
- New York State Restaurant Association, 369 Lexington Avenue, New York 17, N. Y.
- How To Cut Labor Costs.* 1949. 72 pages. \$2.
- Pageant Press, 130 West 42nd Street, New York 36, N. Y.
- Food Service: A Master Plan.* Kelly G. Vester. 1st edition, 1953. \$3.
- John Wiley and Sons, 440 Fourth Avenue, New York 16, N. Y.
- Food Service in Institutions.* Bessie West and Levelle Wood. 2d edition, 1945. \$5.
- University of Chicago, School of Business, 5750 Ellis Avenue, Chicago 37, Ill.
- Key Points of Effective Operating Control.* 1949. \$3.50.
- Management and Management Controls in the Restaurant Industry.* 1947. \$3.50.
- Management Techniques.* 1950. \$3.50.
- The Modernization of Food Facilities and Operations in the Restaurant Industry.* 1946. \$3.50.
- Modernizing Management Methods in the Restaurant Industry.* 1948. \$3.50.
- New Management Methods for Maintaining Profits in 1952.* 1951. \$3.50.
- Planning for Profits in 1953.* 1952. \$4.50.

Restaurant Design, Purchase and Use of Equipment

- Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.
- Equipment Maintenance Manual.* Augusta Clawson. 1951. \$1.65.
- American Cutlery Manufacturers Association, Deerfield, Mass.
- Cutlery: Its Professional Uses.* Lewis Bement. 1954. 25¢.
- American Gas Association, 420 Lexington Avenue, New York 17, N. Y.
- Commercial Kitchens.* C. George Segeler and J. Stanford Setchell. 1948. \$5.
- Architectural Book Publishing Company, 112 West 46th Street, New York 19, N. Y.
- Contemporary Decor: Restaurants, Lounges, Bars.* 1950. \$10.

- F. W. Dodge Corporation, 119 West 40th Street, New York 18, N. Y.
Motels, Hotels, Restaurants and Bars. 1953. \$6.95.
- Food Service, 2132 Fordem Avenue, Madison 1, Wis.
How To Plan a Profitable Layout. Commercial Electric Kitchen Guide No. 1. 50¢.
- Harper and Brothers, 49 East 33rd Street, New York 16, N. Y.
Kitchen Planning for Quantity Food Service. Arthur Dana. 1949. \$5.
- National Sanitation Foundation, School of Public Health, University of Michigan, Ann Arbor, Mich.
Food Service Equipment. Standard No. 2. 1952. 50¢.
Soda Fountain and Luncheonette Equipment. Standard No. 1. 1952. 50¢.
- Orpha Mae Thomas, Columbia University, New York 27, N. Y.
A Scientific Basis for the Design of Institution Kitchens. Orpha M. Thomas. 1947. \$3.

C. DIRECTORIES

The selected list of directories and buyers' guides listed below, which contain information of value to operators of eating establishments, may be consulted at libraries or obtained from the publishers. The Department of Commerce does not publish or furnish the names of individual American firms. Those desiring a more complete list of directories would be interested in *National Directories for Use in Marketing*, Business Service Bulletin No 123, listed under the U. S. Department of Commerce.

- Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.
Representative Geographical List of Dealers. August 1954. A list of restaurant equipment dealers throughout the country.
Restaurant Equipment Dealer Product Directory. See *Restaurant Equipment Dealer* listing in Trade Journals section.
- Domestic Engineering Company, 1801 Prairie Avenue, Chicago 16, Ill.
Institutions Catalog Directory. Annual. \$10.00. Lists names of manufacturers of products used in operating, equipping, remodeling, decorating, furnishing, maintaining, building and repairing restaurants, industrial cafeterias, hotels, schools and colleges, motels, office buildings, clubs, and public institutions. Includes manufacturers' catalogs; classified listing by products; trade names section; and alphabetical index of manufacturer's names and addresses.
- MacRae's Blue Book Company, 18 East Huron Street, Chicago 11, Ill.
MacRae's Blue Book. Annual. \$15.00. Alphabetical and classified lists of manufacturers, producers, and wholesalers; trade name section; trade facilities section. Includes names and addresses of manufacturers of restaurant equipment.
- National Food Brokers Association, 1916 M Street, NW, Washington 6, D. C.
Directory of Members of the National Food Brokers Association. 189 pages. Free.
- Thomas Publishing Company, 461 Eighth Avenue, New York 1, N. Y.
Thomas' Register of American Manufacturers. Annual. \$15.00, plus shipping charges. A general directory of manufacturers, classified by kind of product and arranged geographically, with capital ratings. Also an alphabetical listing with indication of nature of products; a trade name section, listing registered trade names alphabetically.

Thomas' Wholesale Grocery and Kindred Trades Register. Annual. \$10. Lists of wholesale grocers; chain store organizations operating five or more retail units; voluntary buying groups; food brokers; exporters and importers of food products; frozen food brokers, distributors and processors; canners, packers, manufacturers of foods and related products distributed through grocery chains.

Topics Publishing Company, 330 West 42nd Street, New York 36, N. Y.

Topics List Book. Every two years. 1954 edition, \$8.00. Contains a list of wholesale druggists, some of whom supply drugstore soda fountains; also a list of headquarters of chains, some of which maintain soda fountains.

Wine and Spirits Wholesalers of America, 319 North 4th Street, St. Louis 2, Mo.

Blue Book of Wine and Spirits Wholesalers. Annual. 1953-1954 edition, 76 pages. Lists names of companies, addresses, names of managers, et cetera.

D. TRADE JOURNALS

For a more complete list of trade papers and periodicals, consult the following guides, available for reference in many libraries: *N. W. Ayer and Son's Directory of Newspapers and Periodicals*, published by N. W. Ayer and Son, Philadelphia 6, Pennsylvania; *Standard Rate and Data Service*, published monthly by Standard Rate and Data Service, 1740 Ridge Avenue, Evanston, Illinois; and the *Market Data and Directory Number of Industrial Marketing*, published by Advertising Publications, 200 East Illinois Street, Chicago 11, Illinois. For individual articles concerning eating places the commercial indexing services, *Industrial Arts Index*, and *Readers' Guide to Periodical Literature* may be consulted at most large libraries.

American Restaurant. Monthly. \$3.00 per year; 35¢ per copy. Patterson Publishing Company, 5 South Wabash Avenue, Chicago 3, Ill.

American School Food Service News. Published six times a year. \$2.00 per year. American School Food Service Association, 1749 Lee Road, Cleveland Heights 18, Ohio.

Bar-Restaurant. Monthly. An edition of *Institutional Feeding and Housing*. Controlled circulation. Conover-Mast Publications, 205 East 42nd Street, New York 17, N. Y.

Chain Store Age Fountain-Restaurant Magazine. Monthly. \$3.00 per year; 35¢ per copy. Lebharr-Friedman Publications, 2 Park Avenue, New York 16, N. Y.

Chefs' and Stewards' Manual. Quarterly. \$2.00 per year; \$1.00 per copy. Chefs' and Stewards' Manual Company, 634 North San Vicente Boulevard, Los Angeles 46, Calif.

Cooking for Profit. Monthly. \$2.50 per year; 25¢ per copy. Gas Magazines, 221 North Bassett Street, Madison 3, Wis.

Culinary Review. Monthly. \$3.00 per year; 25¢ per copy. The American Culinary Federation, 349 West 48th Street, New York 36, N. Y.

Diner, Drive-in and Restaurant. Monthly. \$3.00 per year; 35¢ per copy. Davidson Publishing Company, 104 East 40th Street, New York 16, N. Y.

Drive-in Restaurant and Highway Cafe Magazine. Monthly. \$3.00 per year; 35¢ per copy. The Drive-in Magazine, 113 East 3d Street, Pratt, Kans.

- Drug Topics*. Biweekly. \$5.00 per year; 25¢ per copy. Topics Publishing Company, 330 West 42d Street, New York 36, N. Y. Includes a section on soda fountain management.
- Food Selling Digest — Restaurant, Hotel, Tavern and Institutions Section*. Monthly. \$1.00 per year; 10¢ per copy. Food Selling Digest Company, 3706 Overland Avenue, Los Angeles 34, Calif.
- Food Service*. Monthly. \$2.50 per year; 25¢ per copy. 2132 Fordem Avenue, Madison 1, Wis.
- Fountain and Fast Food*. Monthly. \$5.00 per year; 50¢ per copy. Service Publishing Corporation, 386 Fourth Avenue, New York 16, N. Y.
- Fountain Luncheonette and Diner Magazine*. Monthly. \$3.00 per year; 35¢ per copy. Christoffers Publishing Company, P. O. Box 30, Rahway, N. J.
- Hotel and Restaurant News*. Weekly. \$3.00 per year; 10¢ per copy. Hotel Service, 462 Park Square Building, Boston 16, Mass.
- Hotel and Restaurant Operator*. Monthly. \$3.00 per year; 35¢ per copy. Industry Publications, 257 Central Tower Building, San Francisco 3, Calif.
- Inplant Food Management*. Monthly. \$4.00 per year; 50¢ per copy. Inplant Publishing Corporation, 230 East Ohio Street, Chicago 11, Ill.
- Institutional Feeding and Housing*. Monthly. Controlled circulation. Conover-Mast Publications, 205 East 42d Street, New York 17, N. Y.
- Institutions Magazine*. Monthly. \$3.00 per year. Domestic Engineering Company, 1801 Prairie Avenue, Chicago 16, Ill.
- Restaurant Equipment Dealer*. Monthly. \$5.00 per year. Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y. The November issue is the *Restaurant Equipment Dealer Product Directory*, which sells separately for \$2.00. This directory contains a list of equipment and supplies, a section devoted to brand names, and a section containing manufacturers' addresses and the addresses of their representatives.
- Restaurant Man*. Monthly. \$2.00 per year; 25¢ per copy. The Restaurant Man Publishing Company, 1457 Broadway, New York 18, N. Y.
- Restaurant Management*. Monthly. \$3.00 per year; 25¢ per copy. Ahrens Publishing Company, 71 Vanderbilt Avenue, New York 17, N. Y.

E. ASSOCIATIONS

A comprehensive list of national associations may be found in *Directory of National Trade Associations*, issued by the Department of Commerce in 1956. It is a 37-page volume listing 2,000 associations in all fields of business. 40¢. Available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

National Restaurant Association. 8 South Michigan Boulevard, Chicago 3, Ill. Affiliated with about 200 State and local associations throughout the United States. Provides publications and services, including courses and regional conventions, for members.

APPENDIX II

CHECKLIST FOR ESTABLISHING A RESTAURANT

I. POINTS TO CHECK WHEN PLANNING TO START A RESTAURANT

Not everyone can successfully operate a restaurant of his own. Some special knowledge, experience, and knowhow is essential in every line of business. Adequate capital in hand or in sight is also necessary. In addition there are personal factors which help or hinder the man who wants to be his own boss. Honest self-appraisal is always difficult but must be made. The points which follow should help you in your preliminary thinking about starting your own business.

*A check or notation in this column
will show you have considered
each point.*

A. Your personal qualifications:

1. Have you had previous experience in the restaurant business? _____
2. Have you considered working for some one else to get more experience if you need it? _____
3. Have you ever bought food in quantity? Do you know food-purchasing methods? _____
4. Do you know anything about food preparation? Service? Menu arrangement? Other technical skills of restaurant operation? _____
5. Do you know anything about bookkeeping? Cost controls? Other items of restaurant management? _____
6. Have you ever supervised the work of others? Do you know principles of personnel management? _____
7. Have you ever hired people? Do you think you could meet a payroll? _____
8. Have you ever dealt with the public? Do you like to meet people? _____
9. Have you ever sold? Do you think you can sell your restaurant to the public? _____
10. Can you boss yourself? Drive yourself to do what is necessary? Are you a self-starter? _____
11. Do you have imagination? Energy? Initiative? _____

12. Can you take advice and evaluate it properly? Do you have the courage to stand by your decisions? _____

13. Are you willing to work long hours? _____

14. Can you overcome obstacles? Fight down discouragement? Keep plugging? _____

B. Your financial qualifications:

1. How much have you saved which you can put into the business immediately? _____

2. How much do you have in the form of other assets which you could, if necessary, sell or on which you could borrow to get additional funds? _____

3. Have you some source from which you could borrow money to put in the business? How is your credit rating? _____

4. Have you considered saving more money before starting for yourself? _____

Note.— You will want to compare these figures with the more detailed estimate of requirements you will make later.

C. Income from the business:

1. What are your present earnings? _____

2. How much can you make as the owner of a restaurant? _____

3. Have you compared this with what you could make as an employee? _____

4. Are you willing to take lower earnings while getting started? For how long? _____

5. Are you willing to risk uncertain or irregular income for the next year? Two years? _____

Note.— When more specific estimates are made you will want to review these questions.

D. When to start your business:

1. Are general business conditions favorable for the establishment of a new restaurant? Are costs in line? Is help available at wages you can afford? How about rents? _____

2. Is your personal situation right for a start now? Do you anticipate unusual family expenditures in the near future? _____

II. POINTS TO CHECK WHEN DECIDING ON LOCATION

A. Economic factors in the community:

1. Is the source of the community's purchasing power well diversified or is it a one-industry community? _____

2. Are conditions in the industry or industries supporting the community improving or getting worse? _____

3. Are the major industries old and well established or new and uncertain? _____

4. Are the industries stable or subject to periodic shut-downs? _____

5. Is the population of the community growing? _____

6. Do enough families earn an income sufficiently high to support the type of restaurant you want to open? _____

7. Are transportation facilities, professional services, banking facilities, schools, etc., available to the community of such caliber that it might be regarded as progressive? _____

8. How active are civic associations in the community? Is there a restaurant association? _____

B. The need for a restaurant in this community:

1. Have you canvassed the community to determine the number of restaurants in operation? _____

2. Are restaurants in the general vicinity busy enough to indicate that patronage is available? _____

3. Have any restaurants in the general vicinity closed recently? Why? How long had they been in operation? _____

4. Do you believe your restaurant will fill a community need that is not being met by existing restaurants? _____

C. Competition:

1. Are competitors old and well established? _____

2. Are competitors' restaurants modern? Attractive? _____

3. Do you think existing restaurants will offer any competition? If so, how much? _____

4. Are you taking your competitors into account in planning the type of restaurant to open? _____

D. Advice from others:

1. Have you talked to a banker? What does he think about your plan? _____

2. Would he think enough of the venture to loan you money? _____

3. What do local businessmen in noncompeting lines think of the prospects? _____

4. What do the representatives of the companies selling restaurant equipment or fixtures think of the prospects for a new restaurant? _____

E. Buying a going business:

Note.—These are some additional points to consider when buying a going business.

1. Why does the owner wish to sell? _____

2. Have you checked his claims about the business with his copies of his income-tax returns? _____

3. Have you consulted a lawyer to be sure that the title the owner gives you is good? _____

4. Has your lawyer checked the public records to see if there is any lien on record against the assets which you are buying? _____

5. Are there any accumulated back taxes to pay? _____

6. Is this a bulk sale? Has the bulk sales law been complied with? _____

7. Does the restaurant have goodwill to offer? _____

8. Are the fixtures and equipment the modern type you would select now? Or would they be unsuitable? Overvalued? In poor condition? _____

9. Would you assume the liabilities? Are the creditors willing to have you assume the debts? _____

III. POINTS TO CHECK WHEN STARTING YOUR RESTAURANT

A. The building and its location:

1. Does the site meet the requirements for the type of operation you have in mind? _____

2. What kind of restaurants, if any, are nearby? _____

3. Is the neighborhood attractive and growing? How about the class of people? _____

4. Is the section zoned for commercial occupancy? _____

5. Have you measured the potential patronage of the site? What sales volume can you expect? _____

6. Is the space adequate to accommodate the required sales volume? How about future expansion? _____

7. Is the front modern and suited for restaurant use or will alterations be required? _____

8. Is there a rear or side entrance for deliveries? _____

9. If most patronage will come by automobile, is there sufficient parking space available? _____

10. Is the building in good repair generally? Of sound construction? _____

11. Are there adequate plumbing, heating, electrical, and ventilating facilities? If not, can they be readily installed? _____

12. Are there any built-in fixtures or equipment you can use? _____

13. Is the floor of the intended kitchen area strong enough to stand up under the weight of kitchen equipment? _____

14. Can enough space be set aside for preparation, store and locker rooms? How about wash-rooms? _____

15. Will local business and building codes permit the physical and operating requirements? _____

B. Rental terms:

1. Is the term of the lease long enough to protect you? Even if you make major alterations? _____

2. Are there provisions in the lease for cancellation? For subleasing? For renewal? _____

3. Does the lease provide for reimbursement for alterations? _____

4. Is the rent a fixed dollar amount? Or a percentage of sale? _____

5. Is the amount of the rent in proper proportion to the estimated sales? _____

6. Is the rent in line with rents on other sites? _____

7. Have you read the lease *carefully*? _____

C. Equipment and fixtures:

1. Have you determined your equipment needs? Your fixtures? _____

2. Have you planned for expansion and future additions to your equipment and fixtures? _____

3. Have planned purchases been held to a minimum without omitting essentials? _____

4. Are your fixtures and equipment properly suited to the needs of the restaurant? Do they harmonize with the atmosphere and type of service contemplated? _____

5. Is your investment in fixtures and equipment in proper proportion to your financial structure? Are you leaving enough funds for working capital? _____

6. If you are going to pay for equipment or fixtures on the installment plan, have you decided upon the maximum monthly payment you can safely afford? Has the amount of such installment purchasing been reduced to a minimum? _____

7. If buying fixtures and equipment as part of the purchase of a going business: Are they a good buy in terms of similar fixtures offered for sale as secondhand material? Is there a lien on them? Have you checked to make sure they are in operating condition? _____

D. Planning your stock:

1. Have you estimated how much your total stock should be? _____

2. Have you broken down this estimate into perishable and nonperishable foods? Into various kinds of goods? _____

3. Has your food selection been guided by an analysis of consumer preference in your potential patronage? By considering the type of operation and menu composition? _____

4. Have you set up a model-stock assortment to follow in your buying? _____

5. Have you worked out any stock-control plans to avoid overstocks, understocks, out-of-stock? _____

6. Have you set up your storeroom to permit easy access from delivery? _____

E. Your sources of supply:

1. Have you made arrangements with wholesalers? With restaurant supply houses for linens, uniforms, etc.? _____
2. Will you buy any merchandise from farms? From manufacturers? _____

F. Selecting your help:

1. What is the method of paying employees in the community? _____
2. What is the prevailing wage scale? What do you plan to pay? _____
3. Do you want to hire men, women, part-time, experienced, or inexperienced people? _____
4. Are satisfactory employees available locally? _____
5. Would it be advantageous or disadvantageous to hire someone now employed by a competitor? _____
6. What skills are necessary? _____
7. Will employees supply skills you lack? _____
8. Have you obtained or designed personnel questionnaires in order to facilitate hiring and obtain information on employee backgrounds? _____
9. Have you considered a short training period for new personnel? Rotating jobs? _____

G. Your accounting records:

1. Have you planned a bookkeeping system? _____
2. What additional records are necessary _____
3. Do you have a cash register? Adding machine? _____
4. Do you need any special forms or records? Can they be bought from stock? Must they be printed? _____
5. Are you going to keep the records yourself? Hire a bookkeeper? Have an outsider come in periodically? _____

H. General policies:

1. Have you decided your service policy, that is whether cafeteria, counter, restaurant, combination counter and cafeteria, etc.? _____
2. Will you handle hard liquors, beer? _____
3. What kind of atmosphere will you try to cultivate? Will you have music, tablecloths, etc.? _____
4. How about menu policies? Will you have special plates, dinners, etc., or all a la carte? _____
5. Will you handle variety foods or specialize in such items as seafood, roast chicken, steaks, etc.? _____
6. What are your competitors' policies and how do they fit in with yours? _____

7. What hours will you remain open? Would you attract trade by opening earlier or later? How about Sundays and holidays? What are competitors' hours? _____

8. What advertising will you do? Any chance of utilizing window displays? Are overhead signs permitted? _____

I. Your financial arrangements:

1. Have you made an estimate of the capital you will need? _____

a. How much will you invest in merchandise inventory? _____

b. How much will you invest in equipment? _____

c. How much will you invest in fixtures? _____

d. How much will you need to pay operating expenses (rent, salaries, supplies, light, etc.) for 2 months? _____

2. How long will it be before the business will start making profits? _____

3. Have you funds to pay the operating expenses until the business pays its way? _____

4. Have you funds for your own living expenses during the period the business is getting started? _____

5. Have you figured out where you can get additional capital? _____

6. Is there any reserve available for unexpected needs? _____

J. Estimate of sales and profits:

1. What are the sales you can reasonably plan to make the first month? _____

2. What are the sales you can reasonably plan to make the first 6 months? _____

3. What are the sales you can reasonably plan to make the first year? _____

4. What is the gross profit you can make on this volume of business? _____

5. What expenses can you forecast as being necessary? _____

6. Is your own salary included in these expenses? _____

7. Is the net profit and salary adequate? _____

Note.—The answers to these questions are the acid test of the feasibility of the proposition, your ability to finance it, and your desire to go ahead. Everything which has gone before is tested here.

IV. POINTS TO CHECK WHEN GETTING READY FOR THE OPENING

A. Are your equipment and food supplies ready?

1. Is the kitchen ready to function efficiently? _____
The dining room? _____

*A check or notation in this column
will show you have considered
each point.*

2. Have you received the stock ordered? _____
 3. Have the menus been prepared? _____
 4. Dishwashing supplies? _____
 5. Telephone? _____
 6. Sugar bowls, salt and pepper shakers, napkins, etc., on the tables or counter? _____
 7. Other table condiments available? _____
 8. Tobacco supplies and after-dinner candy at cashier's booth? _____
 9. Employees' uniforms and linens on hand? _____
- Dish towels? _____

B. Have you bought the necessary insurance?

1. Has fire insurance been purchased? Wind-storm? Cyclone? _____
2. Has insurance protecting against damage suits and public liability claims been purchased? _____
3. Has workmen's compensation insurance been provided? _____
4. Has burglary and holdup insurance been considered? _____
5. What other hazards should be insured against? _____

C. Have you complied with regulations and other legal matters?

1. Is a license to do business necessary? State? City? _____
2. Is a license necessary to handle special commodities? _____
3. Have you checked the police and health regulations as they apply to your business? _____
4. Have you obtained a social-security number? _____
5. Have you worked out a system for paying the withholding tax for your employees? _____
6. Have you worked out a system for handling sales taxes? Excise taxes? _____

D. Are the accounting and sales forms ready?

1. Have you a supply of sales checks? _____
2. Do the employees know how to write them out? _____
3. Has the cost-control system been set up? _____

E. Have you made your promotion plans?

1. Has the opening advertising been prepared? Newspapers? Handbills? Direct mail? _____
2. Have inducements to customers who come in on the first day been planned? Specials on menu? _____
3. Are the signs announcing the opening ready? _____
4. Is your window display arranged? _____

APPENDIX III

TIMETABLES FOR COOKING

Table 1.—Timetable for roasting beef

Cut	Approximate weight of single roast (pounds)	Oven temperature	Interior temperature of roast when removed from oven	Minutes per pound based on one roast	Approximate total time
Standing rib (7-rib)-----	23-----	300° F.	125° F. (rare) 140° F. (medium). 150° F. (well)	11----- 12----- 13-----	4 hours. 4½ hours.
Rolled rib (7-rib)-----	17-----	300° F.	150° F. (well)	24-----	5 hours. 6 hours.
Chuck rib-----	5 to 8-----	300° F.	150° to 170° F.	25 to 30	2½ to 4 hours.
Rump-----	5 to 7-----	300° F.	150° to 170° F.	25 to 30	2½ to 3½ hours.

Table 2.—Timetable for roasting lamb

Cut	Approximate weight of single roast (pounds)	Oven temperature	Interior temperature of roast when removed from oven	Minutes per pound based on one roast	Approximate total time
Leg-----	6½ to 7½	300° F.	180° F.	30 to 35	3 to 4 hours.
Cushion shoulder (with stuffing)-----	4½ to 5½	300° F.	180° F.	30 to 35	2 to 3 hours.
Rolled shoulder-----	3 to 4-----	300° F.	180° F.	40 to 45	2½ to 3 hours.

Table 3.—Timetable for roasting fresh pork

Cut	Approximate weight of single roast (pounds)	Oven temperature	Interior temperature of roast when removed from oven	Minutes per pound based on one roast	Approximate total time
Loin (bone-in)-----	11 to 15	350° F.	185° F.	15 to 18	3 to 3½ hours.
Rolled loin (two halves tied together)-----	-----	350° F.	185° F.	-----	4 hours.
Half loin (bone-in)-----	-----	350° F.	185° F.	-----	4½ hours.
Center cut loin-----	3 to 4-----	350° F.	185° F.	35 to 40	2 to 2½ hours.
End cut loin-----	3 to 4-----	350° F.	185° F.	45 to 50	2½ to 3 hours.
Shoulder-----	12 to 14	350° F.	185° F.	30 to 35	6½ hours.
Cushion shoulder (with stuffing)-----	4 to 6-----	350° F.	185° F.	35 to 40	3 to 3½ hours.
Rolled shoulder-----	4 to 6-----	350° F.	185° F.	35 to 40	3 to 3½ hours.
Boston butt-----	4 to 6-----	350° F.	185° F.	45 to 50	3½ to 4½ hours.
Ham (leg)-----	10 to 12	350° F.	185° F.	30 to 35	6 hours.
Ham (leg)-----	15-----	300° F.	185° F.	30-----	8 hours.
Ham (leg) boned, split, and tied in two rolls-----	10-----	350° F.	185° F.	20 to 25	4 to 5 hours.

Table 4.—Timetable for roasting cured pork

Cut	Approximate weight of single roast (pounds)	Oven temperature	Interior temperature of roast when removed from oven	Minutes per pound based on one roast	Approximate total time
Whole ham.....	10 to 14	300° F--	160° F--	15 to 18	3 to 3½ hours.
Shoulder butt.....	2 to 4	300° F--	170° F--	30 to 35	1 to 2 hours.
Picnic.....	3 to 10	300° F--	170° F--	30 to 35	2 to 5 hours.
Canadian style bacon (casing on).....	7	350° F--	160° F--	10 to 12	1 to 1½ hours.

Table 5.—Timetable for roasting veal

Cut	Approximate weight of single roast (pounds)	Oven temperature	Interior temperature of roast when removed from oven	Minutes per pound based on one roast	Approximate total time
Leg.....	16	300° F--	170° F--	22	6 hours.
Leg.....	23	300° F--	170° F--	18 to 20	7 to 7½ hours.
Loin.....	4½ to 5	300° F--	170° F--	30 to 35	2½ to 3 hours.
Rack (4 to 6 ribs).....	2½ to 3	300° F--	170° F--	30 to 35	1½ hours.
Shoulder.....	7	300° F--	170° F--	25	3 hours.
Shoulder.....	12 to 13	300° F--	170° F--	25	5 to 5½ hours.
Rolled shoulder.....	5	300° F--	170° F--	40 to 45	3½ to 4 hours.

Table 6.—Timetable for broiling[For type of broiler which cooks one side of meat at a time]¹

Cut	Approximate thickness	Approximate cooking time		
		Rare	Medium	Well-done
Rib, club, T-bone, porterhouse, tenderloin or individual servings of sirloin beef steak.	1 inch.....	(Minutes) 15	(Minutes) 20	} 30 (Minutes)
	1½ inches.....	25	35	
	2 inches.....	35	50	
Sirloin beef steak (whole steak)	1 inch.....	20 to 30	30 to 40	
	1½ inches.....	30 to 40	40 to 50	
	2 inches.....	40 to 55	50 to 65	
Ground beef patties.....	1 inch (4 oz.)	15	20	
Shoulder, rib, loin and sirloin lamb chops or steaks.	1 inch.....		12 to 15	
	1½ inches.....		17 to 20	
	2 inches.....		20 to 25	
Ground lamb patties.....	1 inch (4 oz.)		20	
Smoked ham slice.....	½ inch.....			10 to 12
	1 inch.....			16 to 20

¹There are automatic speed broilers which cook both sides of the meat at once and may, therefore, decrease the time to half or even a third of that given above.

Table 7—Timetable for griddle-broiling

Cut	Approximate thickness	Approximate cooking time		
		Rare	Medium	Well-done
		(Minutes)	(Minutes)	(Minutes)
Individual servings of beef steaks.	$\frac{3}{4}$ inch-----	4-----	8-----	12
	1 inch-----	6-----	10-----	15
	$1\frac{1}{2}$ inches-----	10 to 12--	15 to 18--	20
Ground beef patties-----	$\frac{3}{4}$ inch-----	4 to 5--	8 to 10--	12
	1 inch (4 oz.)--	6 to 8--	10 to 12--	15
Lamb chops-----	1 inch-----	-----	10-----	15
	$1\frac{1}{2}$ inches-----	-----	15-----	20 to 25
Ground lamb patties-----	$\frac{3}{4}$ inch-----	-----	10-----	12 to 15
	1 inch (4 oz.)--	-----	10 to 15--	15 to 20
Smoked ham slice-----	$\frac{1}{2}$ inch-----	-----	-----	6 to 10

Table 8.—Timetable for braising

Cut	Average weight or size	Approximate cooking time
Pot-roast-----	3 to 5 pounds-----	3 to 4 hours.
Pot-roast-----	5 to 15 pounds-----	3 to 5 hours.
Swiss steak-----	1 to $2\frac{1}{2}$ inches thick-----	2 to 3 hours.
Round steak or flank steak-----	$\frac{1}{2}$ inch (pounded) thick-----	45 minutes to 1 hour.
Stuffed steak-----	$\frac{1}{2}$ to $\frac{3}{4}$ inch thick-----	$1\frac{1}{2}$ hours.
Short ribs-----	$2\frac{1}{2}$ x 4 x $2\frac{1}{2}$ inches-----	$1\frac{1}{2}$ to $2\frac{1}{2}$ hours.
Fricassee-----	1 to 2-inch pieces-----	2 to 3 hours.
Beef birds-----	2 x 4 x $1\frac{1}{2}$ inches-----	$1\frac{1}{2}$ to 2 hours.
Stuffed lamb breast-----	2 to 3 pounds-----	$1\frac{1}{2}$ to 2 hours.
Rolled lamb breast-----	$1\frac{1}{2}$ to 2 pounds-----	$1\frac{1}{2}$ to 2 hours.
Lamb shanks-----	$\frac{1}{2}$ pound each-----	1 to $1\frac{1}{2}$ hours.
Lamb neck slices-----	$\frac{1}{2}$ to $\frac{3}{4}$ inch thick-----	1 to $1\frac{1}{2}$ hours.
Lamb riblets-----	$\frac{3}{4}$ x 3 x $\frac{3}{4}$ inches-----	$1\frac{1}{2}$ to 2 hours.
Pork chops or steaks-----	$\frac{3}{4}$ to 1 inch thick-----	45 minutes to 1 hour.
Spareribs-----	2 to 3 pounds-----	$1\frac{1}{2}$ to 2 hours.
Stuffed veal breast-----	3 to 4 pounds-----	$1\frac{1}{2}$ to $2\frac{1}{2}$ hours.
Rolled veal breast-----	2 to 3 pounds-----	2 to 3 hours.
Veal cutlets-----	$\frac{1}{2}$ x 3 x $5\frac{1}{2}$ inches-----	45 minutes to 1 hour.
Veal steaks or chops-----	$\frac{1}{2}$ to $\frac{3}{4}$ inch thick-----	45 minutes to 1 hour.
Veal birds-----	$\frac{1}{2}$ x 2 x 4 inches-----	45 minutes to 1 hour.

Table 9.—Timetable for simerring (cooking in liquid)

[Large cuts and stews]

Cut	Average size or average weight	Approximate cooking time	
		Minutes per pound	Total hours
Fresh beef.....	4 to 8 pounds.....	40 to 50.....	3 to 4
Corned beef.....	6 to 8 pounds.....	40 to 50.....	4 to 6
Fresh pork.....	Weight desired.....	30.....	
Smoked whole ham.....	12 to 16 pounds.....	18 to 20.....	4 to 5
Smoked picnic.....	4 to 8 pounds.....	35 to 45.....	3 to 4½
Stew, lamb or veal.....	1 to 2 inch cubes.....		1½ to 2
Stew, beef.....	1 to 2 inch cubes.....		2 to 3

Table 10.—Timetable for roasting poultry

Kind of poultry	Approximate weight		Oven temperature	Time per pound approximate minutes (well done)
	Pounds per dozen	Pounds per bird		
Chicken.....	43 to 47.....	3½ to 4.....	350° F.....	35 to 45; with longer time for smaller sizes.
	48 to 54.....	4 to 4½.....		
	55 to 59.....	4½ to 5.....	325° F.....	30 to 35.
	60 and over.....	5 and over.....		
Turkeys.....		12 to 14.....	325° F.....	18 to 25; with longer time for smaller sizes.
		14 to 16.....	300° F.....	12 to 18; with longer time for smaller sizes.
		16 to 18.....		
		18 and over.....		
Duck.....		4½ to 5½.....	325 to 350° F.....	40 to 45.

Table 11.—Timetable and temperatures for frying in deep fat

	Temperature	Time
	Degrees F.	Minutes
Chicken, in batter, pre-cooked.....	365	7-10
Chicken, pre-cooked.....	350	7-10
Chicken, fryers, raw, disjointed.....	325	20-25
Chinese noodles.....	365	1
Croquettes.....	365	2-5
Cutlets and breaded chops.....	350	7-10
Doughnuts.....	360	2-5
Fish balls.....	365	2-5
Fish fillets.....	365	4-6
Fish, small (perch and smelts).....	365	4-6
Fritters.....	365	3-5
French toast.....	360	2-3
Potatoes:		
French fried (one operation).....	350	10-12
French fried (two operations):		
Blanch at.....	320	10-12
Brown at.....	365	1-2
Julienne.....	325	5-8
Saratoga chips.....	325	4-5

Table 12.—Timetable for cooking fresh vegetables

Vegetables	In boiling water		In steamer	In oven
	Minutes (actual boiling)	Amount (boiling water)	Minutes	Minutes
Asparagus:				
(bunched stalks)-----	12-20	Covered (except tips)---	—	—
Tips-----	5-8	Covered-----	—	—
Stalks-----	10-20	Covered-----	—	—
Beans, green cut-----	15-25	Covered-----	—	—
Beans, lima (green)-----	20-30	Covered-----	—	—
Beet greens, young-----	6-12	Enough to keep leaves from sticking to ket- tle—8 qts. to 15 lbs.---	—	—
Beets, new whole*-----	35-60	Covered-----	40-90	—
Beets, old*-----	60-120	Covered-----	90-120	—
Broccoli-----	10-20	Covered-----	—	—
Brussels sprouts-----	6-15	Covered-----	—	—
Cabbage, green shredded-----	5-8	Covered-----	8-15	—
Cabbage, wedges-----	10-15	Covered-----	15-20	—
Carrots, new sliced or otherwise cut*-----	20-30	Covered-----	25-35	—
Carrots, old, sliced or otherwise cut*-----	25-35	Covered-----	30-45	—
Cauliflower, broken up-----	8-15	Covered-----	12-20	—
Celery*-----	10-20	Covered-----	15-25	—
Corn*-----	5-8	Covered-----	5-10	—
Kale, midrib removed-----	5-10	Enough to keep leaves from sticking to ket- tle—8 qts. to 15 lbs.---	—	—
Onions, medium whole-----	20-30	Covered-----	25-35	40-45
Parsnips, halved or quartered-----	18-30	Covered-----	25-35	—
Peas-----	12-20	Covered-----	—	—
Potatoes, sweet*-----	25-35	Covered-----	30-40	35-60
Potatoes, white*-----	30-40	Covered-----	35-45	60-120
Rutabagas, cubed*-----	20-30	Covered-----	25-35	—
Spinach-----	5-8	Enough to keep leaves from sticking to ket- tle—8 qts. to 15 lbs.---	—	—
Squash, hubbard*-----	30-40	Covered-----	35-45	45-90
Squash, summer*-----	15-20	Covered-----	20-30	30-45
Swiss chard-----	7-10	Enough to keep leaves from sticking to ket- tle—8 qts. to 15 lbs.---	—	—
Tomatoes-----	15-20	None-----	—	20-40
Turnips, white cubed*-----	15-20	Covered-----	20-30	—

*Steaming preferred for these vegetables.

Note.—It is impossible to give accurate cooking time. It will vary with the tenderness and size of pieces of the vegetable, amount of water, amount cooked at one time and type of cooking equipment.

Table 13.—Timetable for cooking frozen vegetables

Vegetable	Pounds	Boiling salted water (gallons)	Cooking time Minutes (approximate)
Asparagus cuts.....	25	2	10 to 15
Asparagus spears.....	20	2	6 to 9
Broccoli.....	20	(1)	6 to 10
Brussels sprouts.....	25	(1)	5 to 6
Cauliflower.....	20	(1)	6 to 10
Corn, cut.....	25	1	5 to 6
Beans, green.....	25	2	8 to 13
Beans, lima.....	25	2	17 to 20
Peas.....	25	2	6 to 8
Spinach.....	20	2	4 to 6
Beans, wax.....	25	2	8 to 13

¹ To cover.

APPENDIX IV

PURCHASING GUIDES

Table 1.—Meat cuts for broiling and griddle-broiling (or panbroiling) (tender)

Beef	Lamb	Pork		Veal	Variety meats
		Fresh	Smoked		
Rib Steak Club Steak T-bone steak Porterhouse steak Sirloin steak (cut from loin strip) Butt steak Tip steak (knuckle) Inside chuck steak (high quality) Top round steak (high quality) Beef patties (hamburger)	Shoulder chops Rib chops Loin chops Leg steaks Lamb patties (ground lamb)	Fresh pork is not broiled or griddle-broiled	Sliced ham Sliced bacon Sliced Canadian style bacon Shoulder butt	Veal is not broiled unless it is fairly mature and well-fatted, and then, only loin chops or steaks	Sliced veal or lamb liver Lamb kidneys Brains Sweetbreads

Table 2.—Meat cuts for simmering (cooking in water) (less tender)

Beef		Lamb	Pork		Veal	Variety meats
Fresh	Corned		Fresh	Smoked		
Chuck (all cuts) Rump butt Shank Heel of round Brisket Plate Flank Short ribs	Brisket Rump Plate Round	Neck Breast Flank Shanks (Large cuts of lamb are not cooked in water.)	Spareribs Backbones Pigs feet Hocks	Ham Shoulder Picnic Shoulder butt Hocks	Neck Shank Breast Flank (Large cuts of veal are are not cooked in water)	Kidney Heart Tongue For pre-cooking: Brains Sweetbreads.

Table 3.—Meat cuts for braising

[Less-tender except pork and veal chops and steaks]

Beef	Lamb	Pork	Veal	Variety meats
Chuck (all cuts)	Breast	Chops:	Breast	Heart, all kinds
Brisket	Neck	Loin	Chops:	Liver:
Plate	Shank	Rib	Loin	Beef
Flank	Shoulder	Shoulder	Rib	Pork
Neck		Feet	Shoulder	Kidneys
Outside (bottom)		Hocks	Cutlets (leg)	Tripe
round		Spareribs	Neck	
Heel of round		Fresh ham	Shoulder	
Rump butt		steaks	Shank	
Shank		Tenderloin		
Short ribs				
Skirt steak				
Ox tail (joints)				

Table 4.—A guide to number of pounds of beef to buy for roasting to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase*
		(Ounces)	(Pounds)
Rib-----	Seven-rib standing-----	2.5	44
		3.0	50
		4.0	67
		5.0	88
		6.0	100
		8.0	134
Round-----	Rump and shank off-----	2.1	39
		3.0	55
		4.0	74
		5.0	91
		6.0	110
Sirloin butt-----	Boneless-----	2.1	26
		3.0	32
		4.0	50
		5.0	63
		6.0	75
Ground Beef-----	Meat loaf (all meat)-----	2.1	24
		3.0	35
		4.0	46
		5.0	58
		6.0	69
Ground beef-----	Meat loaf (with cereal filler)-	2.6	18
		3.0	21
		4.0	28
		5.0	35
		6.0	42

*If the roasting temperature is increased above 300° F. the number of pounds of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 5.—A guide to number of pounds of lamb to buy for roasting to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase*
		(Ounces)	(Pounds)
Leg-----	Bone-in-----	2.2	34
		3.0	46
		4.0	62
Shoulder-----	Bone-in-----	2.7	29
		3.0	32
		4.0	42
Shoulder-----	Boneless-----	2.7	27
		3.0	30
		4.0	40

*If the roasting temperature is increased above 300° F. the number of pounds of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 6.—A guide to number of pounds of pork to buy for roasting to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase*
		(Ounces)	(Pounds)
Loin-----	Bone-in-----	2.5	37
		3.0	44
		4.0	59
		5.0	74
Loin-----	Boneless-----	2.0	31
		3.0	47
		4.0	62
		5.0	78
Shoulder-----	Cushion-----	2.8	38
		3.0	41
		4.0	54
		5.0	68
Fresh ham (leg)-----	Bone-in-----	2.5	38
		3.0	46
		4.0	61
		5.0	76
Smoked or pickled ham--	Bone-in-----	1.9	35
		2.0	37
		3.0	55
Canadian style bacon----	-----	2.7	21
		3.0	23

*If the roasting temperature is increased above 350° F. the number of pounds of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 7.—A guide to number of pounds of veal to buy for roasting to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase*
		(Ounces)	(Pounds)
Leg-----	Bone-in-----	2.7	34
		3.0	38
		4.0	50
Shoulder-----	Cushion-----	2.4	22
		3.0	28
		4.0	37
Shoulder-----	Rolled-----	2.6	27
		3.0	31
		4.0	41
Round-----	Rump and shank off--	2.0	27
		3.0	41
		4.0	54

*If the roasting temperature is increased above 300° F. the number of pounds of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 8.—A guide to number of pounds of lamb to buy for chops and riblets to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase*
		(Ounces)	(Pounds)
Loin or rib-----	Chops-----	2.8	36
		3.0	38
		4.0	51
Breast-----	Riblets-----	3.2	30
		4.0	38

*If the cooking is carried out at an excessively high temperature the amount of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 9.—A guide to number of pounds of pork chops, pork cutlets, pork sausage, and bacon to buy to serve 100

Cut	Style	Weight of cooked serving	Approximate amount to purchase ¹
		(Ounces)	(Pounds)
Loin-----	Pork chops-----	4.0	40
		5.0	50
Pork cutlets-----		2.4	13
		3.0	16
		4.0	22
		5.0	27
Sausage-----	Bulk-----	1.3	15
		2.0	23
		3.0	34
Bacon-----	Sliced-----	0.5	9
		1.0	18
		1.5	27

¹ If the cooking is carried out at an excessively high temperature the amount of meat purchased to provide any certain weight of cooked servings will necessarily have to be increased.

Table 10.—A guide for the buying and use of variety meats

Kinds	Characteristics*	Food value	Buying guide		Preparation
			Average weight	Servings	
Liver (beef, calf, pork, lamb).	Calf, lamb, pork livers more tender than beef. Calf and lamb livers milder in flavor than pork and beef.	Richest source of iron. High in phosphorus, A and B vitamins, quality protein. Some vitamin D.	1 beef—10 lb. 1 calf—2½ lb. 1 pork—3 lb. 1 pork—1 lb.	¾ to 1 lb. for four.	Braise, fry, or broil.
Kidney (beef, calf, pork, lamb).	Calf, lamb, and pork kidneys more tender, of milder flavor than beef. Veal and lamb kidneys sometimes cut with chops.	Rich source of iron, phosphorus. Good source of vitamin A, excellent for B vitamins, quality protein.	1 beef—1 lb. 1 calf—¾ lb. 1 pork—¼ lb. 1 lamb—⅛ lb.	4 to 6 3 to 4 1 to 2 ½ to 1	Stew, braise, broil, or grind for loaves or patties.
Heart (beef, calf, pork, lamb).	Beef heart is least tender but all hearts must be made tender by proper cooking.	Rich source of iron and phosphorus. Excellent for B vitamins and quality protein.	1 beef—4 lb. 1 calf—½ lb. 1 pork—½ lb. 1 lamb—¼ lb.	12 to 16 2 to 3 2 to 3 1	Braise, stuff and braise, stew or grind for loaves or patties.
Tongue (beef, calf, pork, lamb).	May be purchased fresh, pickled, corned, or smoked. Make tender by proper cooking. Pork and lamb usually purchased ready to serve.	Good source of iron, phosphorus, B vitamins and quality protein.	1 beef—3¾ lb. 1 calf—1½ lb. 1 pork—¾ lb. 1 lamb—½ lb.	12 to 16 3 to 6 2 to 4 2 to 3	Simmer in seasoned water until tender. Remove skin; serve as desired.
Tripe (beef) -----	First and second stomachs of beef. Plain and honeycomb, latter preferred. Purchased fresh, pickled, or corned. Make tender by proper cooking.	Good source of quality protein.	Plain—7 lb. Honeycomb—1½ lb.	¾ to 1 lb. for four.	Precook in water to make tender. Then broil, fry, or braise.
Sweetbreads (beef, calf, lamb).	Divided into two parts: Heart and throat sweetbreads. Tender and delicate in flavor.	Good source of riboflavin (vit. B ₂) and quality protein.	⅛ lb.	¾ to 1 lb. for four.	Precook in water to help keep and make firm; broil, fry, braise or cream.
Brains (beef, calf, pork, lamb).	Very tender and delicate in flavor.	Good source of iron, phosphorus, B vitamins, and quality protein.	⅜ lb.	¾ to 1 lb. for four.	Precook in water to help keep and make firm. Then scramble, fry, or cream.

*All variety meats are practically boneless and have high percentage of edible meat.

Table 11.—Meat cuts for roasting

[Tender]

Beef	Lamb	Pork		Veal	Variety meats
		Fresh	Smoked		
Rib	Leg	Ham (leg)	Ham	Leg	Liver
Sirloin butt	Loin	Loin	Picnic	(round)	
Loin strip	Rack	Boston butt	Shoulder butt	Loin	
Tenderloin	Rolled	Picnic	Canadian	Rib	
Rump butt (high quality)	Roller shoulder	Rolled	style bacon	Rolled	
Round (high quality)	Cushion	Roller shoulder	Loaf	Roller shoulder	
Inside (top) round	Loaf	Cushion	(ground ham)	Loaf	
Outside (bottom) round	(ground lamb)	Spareribs		(ground veal)	
Knuckle (tip)					
Inside chuck (high quality)					
Shoulder clod (high quality)					
Loaf (ground beef)					

Table 12.—Weights and yields of canned vegetables

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weight Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Asparagus White Green Tipped All Green	{A-Fancy C-Standard}	{Spears Cut Spears Bottom Cuts}	{No. 303 No. 2 No. 10}	16 oz. 19 oz. 103 oz.	(4) 9½ oz. 11¾ oz. 63 oz.	3 oz.	{ 3 ⁵ 4 ⁵ 21 ⁵ }	33 25 5
Beans Green Wax }	{A-Fancy B-Ex. Std. C-Standard}	{Whole Cut French Style}	{No. 303 No. 10}	15½ oz. 101 oz.	(4) 9 oz. 61 oz.	3 oz.	{ 3 ⁵ 20 ⁵ }	33 5
Beets	A-Fancy C-Standard}	{Whole Sliced Diced Julienne Cut}	{No. 303 No. 10}	16 oz. 104 oz.	(4) 9 oz. 68 oz.	3 oz.	{ 3 ⁵ 23 ⁵ }	33 4
Carrots	A-Fancy C-Standard}	{Whole Sliced Quartered Diced Julienne}	{No. 303 No. 10}	16 oz. 105 oz.	(4) 9 oz. 68 oz.	3 oz.	{ 3 ⁵ 23 ⁵ }	33 4
Corn Sweet White Yellow }	{A-Fancy B-Ex. Std. C-Standard}	{Cream Style Whole Kernel}	{No. 303 No. 2 No. 303 No. 10 12-oz. vac.	16 oz. 20 oz. 16 oz. 106 oz. 12 oz.	(6) 10½ oz. 70 oz.	4 oz. 4 oz.	{ 4 5 3 ⁵ 18 ⁵ 3 ⁵ }	25 20 33 5 33
Hominy White Yellow }	(7)		{No. 2½ No. 10}	29 oz. 105 oz.	(8) 19 oz. 73 oz.	4 oz.	{ 5 ⁵ 18 ⁵ }	20 5

See Page 252 for footnotes.

Table 12.—Weights and yields of canned vegetables (continued)

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weight Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Mushrooms White } Brown }	{A-Fancy } {C-Standard }	{Whole Buttons } {Sliced Whole } {Sliced Buttons } {Stems and Pieces }	{Jumbo } {No. 2½ } {No. 10 }	24 oz. 28 oz. 103 oz.	16 oz. } 18 oz. } 68 oz. }	Determined by Use		
Okra	A-Fancy } C-Standard }	{Whole } {Cut }	{No. 303 } {No. 2 } {No. 10 }	15½ oz. 19 oz. 99 oz.	(4) 10 } 12 } 60 }	Determined by Use		
Peas Early } Sweet }	{A-Fancy } {B-Ex.Std. } {C-Standard }		{No. 303 } {No. 10 }	16 oz. } 105 oz. }	(9)	3 oz.	{ 4 ⁵ } { 24 ⁵ }	25 4
Pumpkin (Squash)	A-Fancy } C-Standard }		{No. 2½ } {No. 10 }	29 oz. } 106 oz. }		4 oz.	{ 7 } { 21 }	14 5
Sauerkraut	{A-Fancy } {C-Standard }	{Shredded } {Chopped }	{No. 2½ } {No. 10 }	27 oz. 99 oz.	23 oz. } 80 oz. }	3 oz.	{ 8 ⁵ } { 27 ⁵ }	13 4
Spinach (Applicable also to Canned Collards, Kale, Beet, Mustard and Turnip Greens)	{A-Fancy } {C-Standard }		{No. 303 } {No. 2½ } {No. 10 }	15 oz. 27 oz. 98 oz.	10¾ oz. } 19 oz. } 60 oz. }	3 oz.	{ 4 ⁵ } { 7 ⁵ } { 20 ⁵ }	25 14 5

See Page 252 for footnotes.

Table 12.—Weights and yields of canned vegetables (continued)

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weights Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Succotash	{ A-Fancy B-Ex. Std. C-Standard }	Corn { Whole Ker- nel or Cream Style and Snap, Green Beans } Lima or Soaked Dry Limas	{ No. 303 No. 10 }	16 oz. 108 oz.	(9)	3 oz.	{ 4 ⁵ 24 ⁵ }	25 4
Tomatoes	{ A-Fancy B-Ex. Std. C-Standard }		{ No. 303 No. 2½ No. 10 }	16 oz. 28 oz. 102 oz.	(10)	4 oz.	{ 4 7 20 }	25 14 5
Tomato Juice	{ A-Fancy C-Standard }		{ No. 3 Cyl. No. 10 }	46 fl. oz. 96 fl. oz.		4 fl. oz.	{ 12 24 }	9 4
Tomato Puree (Pulp)	{ A-Fancy C-Standard }	{ Heavy Medium Light }	No. 10 No. 10	105 oz. 104 oz.		Determined by Use		

¹ Label Statement of Net Contents as recommended by National Canners Association.

² Recommended in U. S. Grade Standards (except as otherwise noted).

³ Planning Food for Institutions (Agriculture Handbook No. 16). Bureau of Human Nutrition and Home Economics.

⁴ Varies with one or more of the following: Type Style or Size.

⁵ Drained Weight. ⁶ Varies according to Maturity. ⁷ No U. S. Standards for this Product.

⁸ Federal Specification N-H-541a. ⁹ No recommended Minimum Drained Weight.

¹⁰ Varies according to Grade.

Source: Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, Agricultural Marketing Service, U. S. Department of Agriculture.

Table 13.—Weights and yields of canned fruits

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weight Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Apples	{A-Fancy C-Standard}	Sliced	No. 10	96 oz.	96 oz.	Determined by Use		
Applesauce	{A-Fancy C-Standard}		{No. 303 No. 10}	16 oz. 108 oz.		4 oz.	{ 4 27 }	25 4
Apricots	{A-Fancy B-Choice C-Standard C-Solid Pack D-Solid pack}	Unpeeled Halves Unpeeled Halves	{No. 2½ No. 10 No. 10	30 oz. 108 oz. 108 oz.	18 oz. 66 oz. 92 oz.	4 oz.	{ 7 27 }	14 4
Blackberries ⁴	{A-Fancy B-Choice C-Standard C-Heavy pack}		{No. 303 No. 10 No. 10	(5) 16 oz. 103 oz. 103 oz.	8¼ oz. 60 oz. 70 oz.	4 oz.	{ 4 26 26 }	25 4 4
Cherries, Sweet Light Dark	{A-Fancy B-Choice C-Standard}	Unpitted	{No. 303 No. 10 No. 10	(5) 16 oz. 104 oz.	(5) 9¾ oz. 66 oz.	4 oz.	{ 4 26 }	25 4
Cherries, Red Sour Syrup pack Water pack	{A-Fancy C-Standard C-Water pack}	Pitted Pitted	{No. 303 No. 10 No. 10	(5) 16 oz. 105 oz. 103 oz.	10¼ oz. 70¼ oz. 74 oz.	4 oz.	{ 4 26 Determined by Use }	25 4
Cranberry Sauce	{A-Fancy C-Standard}	{Jellied Whole}	No. 300 No. 10	16 oz. 117 oz.		1 oz.	{ 16 117 }	6 1

See Page 255 for footnotes.

Table 13.—Weights and yields of canned fruits (continued)

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weight Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Figs, Kadota Sirup pack	{A-Fancy B-Choice C-Standard}	Whole	{No. 2½ No. 10}	30 oz. 112 oz.	18 oz. 66 oz.	4 oz.	{ 7 28 }	14 4
Fruit Cocktail	{A-Fancy B-Choice}		{No. 2½ No. 10}	30 oz. 110 oz.	19 oz. 71 oz.	4 oz.	{ 7 27 }	14 4
Fruits for Salad	{A-Fancy B-Choice}		{No. 2½ No. 10}	(5) 30 oz. 108 oz.	(5) 18 oz. 64½ oz.	4 oz.	{ 7 27 }	14 4
Grapefruit Sections	{A-Fancy B-Choice Broken}		{No. 303 No. 3 Cyl.	16 oz. 50 oz.	(5) 9¼ oz. 28½ oz.	4 oz.	{ 4 12 }	25 8
Grapefruit Juice	{A-Fancy C-Standard}	{Sweetened Unsweetened}	{No. 2 No. 3 Cyl. No. 10}	18 fl. oz. 46 fl. oz. 96 fl. oz.		4 fl. oz.	{ 5 12 24 }	20 8 4
Orange Juice	{A-Fancy C-Standard}	{Sweetened Unsweetened}	{No. 2 No. 3 Cyl. No. 10}	18 fl. oz. 46 fl. oz. 96 fl. oz.		4 fl. oz.	{ 5 12 24 }	20 8 4
Peaches Yellow Cling Freestone	{A-Fancy B-Choice C-Standard C-Solid pack D-Solid pack}	{Halves Sliced} Halves	{No. 2½ No. 10 No. 10}	29 oz. 106 oz. 104 oz.	(5) 17½ oz. 64 oz. 92 oz.	{2 Med. Halves or 4 oz.}	7 26 Determined by Use	14 4

See Page 253 for footnotes.

Table 13.—Weights and yields of canned fruits (continued)

Product Type	Grade	Principal Styles	Principal Can Sizes	Minimum Net Contents Per Can ¹	Minimum Drained Weight Per Can ²	Size of Portion ³	Average Number of Portions Per Can	Number of Cans for 100 Portions
Pears Bartlett	{A-Fancy B-Choice C-Standard}	Halves, Peeled	{No. 2½ No. 10}	{(5) 29 oz. 105 oz.}	{(5) 16 oz. 62 oz.}	2 Med. Halves	{ 7 25 }	14 4
	{A-Fancy B-Choice C-Standard A-Fancy B-Choice C-Standard C-Reg. pack C-Heavy pack C-Solid pack}					1 Large Slice or 2 Small Slices 4 oz.	{ 8 25 } { 7 27 }	13 4 14 4
Pineapple		{Slices Half Slices Broken Slices Chunks Tid-Bits Salad Cuts Crushed	{No. 2½ No. 10 {No. 2½ No. 10 No. 10	29 oz. 107 oz. 29 oz. 107 oz. 109 oz.	{(5) 18 oz. 62½ oz. 18¼ oz. 65¾ oz. 72¼ oz. 79 oz. 85½ oz.}	Determined by Use		
Plums Purple Green Gage Yellow Egg	{A-Fancy B-Choice C-Standard}	Whole	{No. 2½ No. 10}	{(5) 29 oz. 106 oz.}	{(5) 15½ oz. 60 oz.}	3 Med. Size	{ 7 25 }	14 4
Prunes, Dried	{A-Fancy B-Choice C-Standard C-Heavy pack}	Whole Whole	{No. 2½ No. 10 No. 10	30 oz. 110 oz. 110 oz.	19 oz. 70 oz. 110 oz.	5 Med. Size 4 oz.	{ 8 28 } 28	13 4 4
Raspberries, Red	{A-Fancy B-Choice C-Standard D-Water pack}		{No. 303 No. 10 No. 10	{(5) 16 oz. 105 oz. 103 oz.}	{10 oz. 63 oz. 70 oz.}	4 oz.	{ 4 26 } 26	25 4 4

¹ Label Statement of Net Contents as recommended by National Canners Association.

² Recommended in U. S. Grade Standards (except as otherwise noted).

³ Planning food for institutions (Agriculture Handbook No. 16), Bureau of Human Nutrition and Home Economics.

⁴ Including Boysenberries, Dewberries, Loganberries and other similar berries.

⁵ Varies with one or more of the following: Sirup Density; Grade; Count or Style.

Source: Processed Products Standardization and Inspection Branch, Fruit and Vegetable Division, Agricultural Marketing Service, U. S. Department of Agriculture

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